



# **Eastgate/I-90**

Land Use & Transportation Project

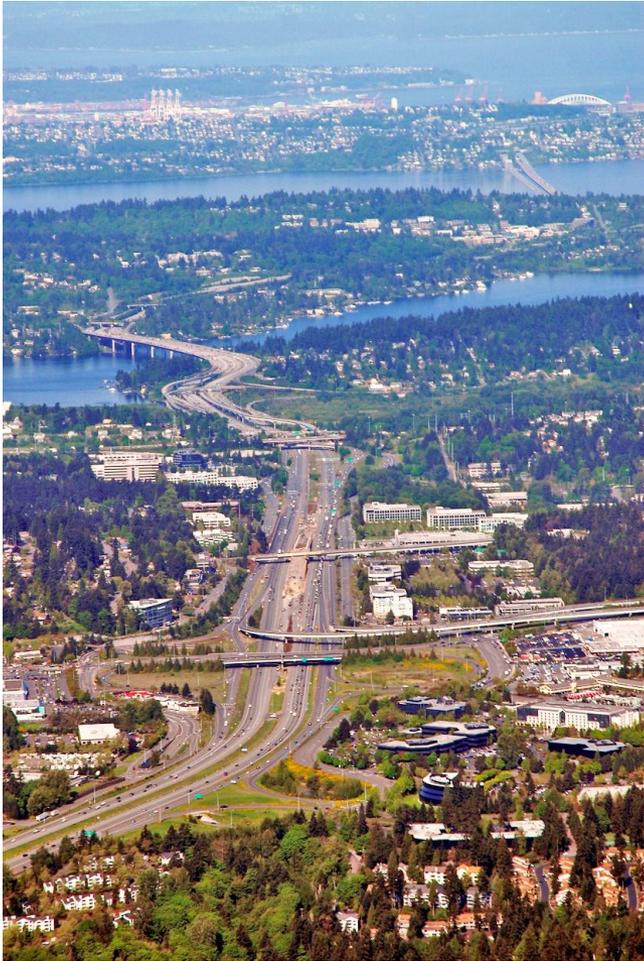
***Citizen Advisory Committee***

***January 5, 2012***

Jan 5 Meeting – Preferred alternative clarifications, implementation strategies, and final report direction.

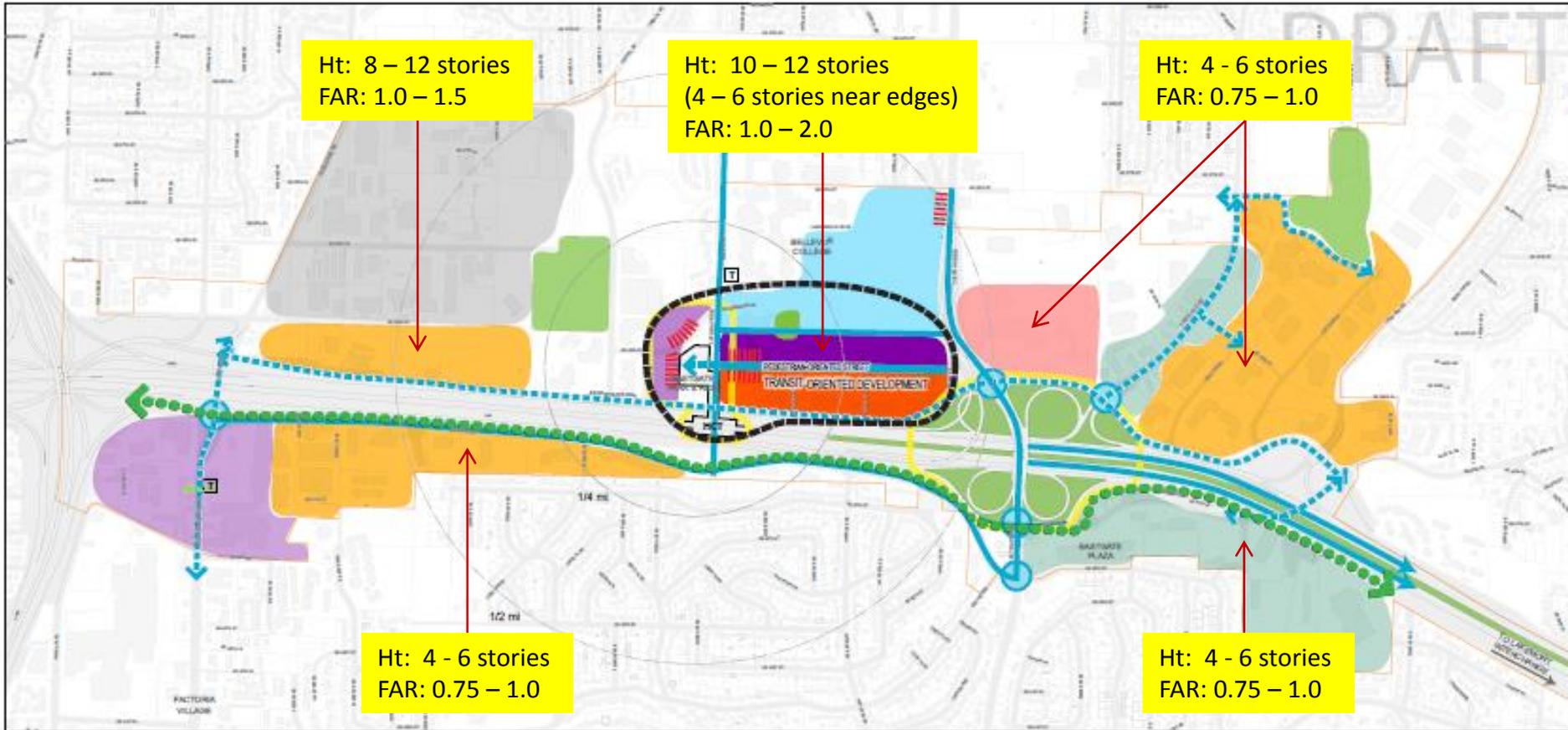


	Nov-Dec 2010	Jan-Feb 2011	Mar-Apr 2011	May-Jun 2011	Jul-Aug 2011	Sep-Oct 2011	Nov-Dec 2011	2012
CAC	Background & Context	Issues & Opportunities Land Use, Transportation, Urban Design, Environment		Identification and Analysis of Alternatives		Development of Preferred Alternative	Final Report	Comprehensive Plan and Development Code Amendments
Outreach	<p style="text-align: center;">● ————— Community Briefings ————— ●</p> <p style="text-align: right;">Open Houses</p>							
Reporting	<p style="text-align: center;">Regular Briefings to Transportation Commission &amp; Planning Commission</p> <p style="text-align: center;">Regular Briefings to City Council</p>							



## **Eastgate/I-90** Land Use & Transportation Project

# **Item 4 – Finalize the Preferred Alternative**





Going west, at Lakemont interchange—open lawn, wooded



At Lakemont interchange, above 180<sup>th</sup> Ave SE—not urban



Just past interchange—hint of development through trees



Lake Sammamish peek-through views



Wooded, trail crossing landmark



161<sup>st</sup> Ave SE interchange—building views mostly blocked



161<sup>st</sup> Ave SE interchange—open lawn



I-90 office park barely visible



I-90 office park—peek-through views through trees



148<sup>th</sup>/150<sup>th</sup> Ave SE bridge is landmark



Eastgate interchange—sense of arrival?

## Objectives:

- Attractive entry
- Reinforce “City in a Park” identity
- Safe and easily maintained
- Pleasing visual sequence
- Reduce freeway impact on air and water quality, noise, etc



## Concept:

- “Sculpt” plant configuration for pleasing visual sequence, spot views of businesses and buildings
- Take advantage of special conditions and address ecological objectives
- Reduce opportunities for vagrancy
- Include accent species to add interest



EVERGREEN TREE BUFFER

NATIVE MEADOW

NATIVE PLANTING  
1.5' - 6' HT.

NATIVE PLANTING WITH  
ACCENT PLANTINGS  
1.5' - 4' HT.

DECIDUOUS TREE CLUSTER

2

1

Eastgate interchange option A



VIEW 1



VIEW 2

# Eastgate interchange option A



Eastgate interchange option B



VIEW 1



VIEW 2

# Eastgate interchange option A



Accent Planting

Native Planting

Native Meadow

Native Wetland Planting



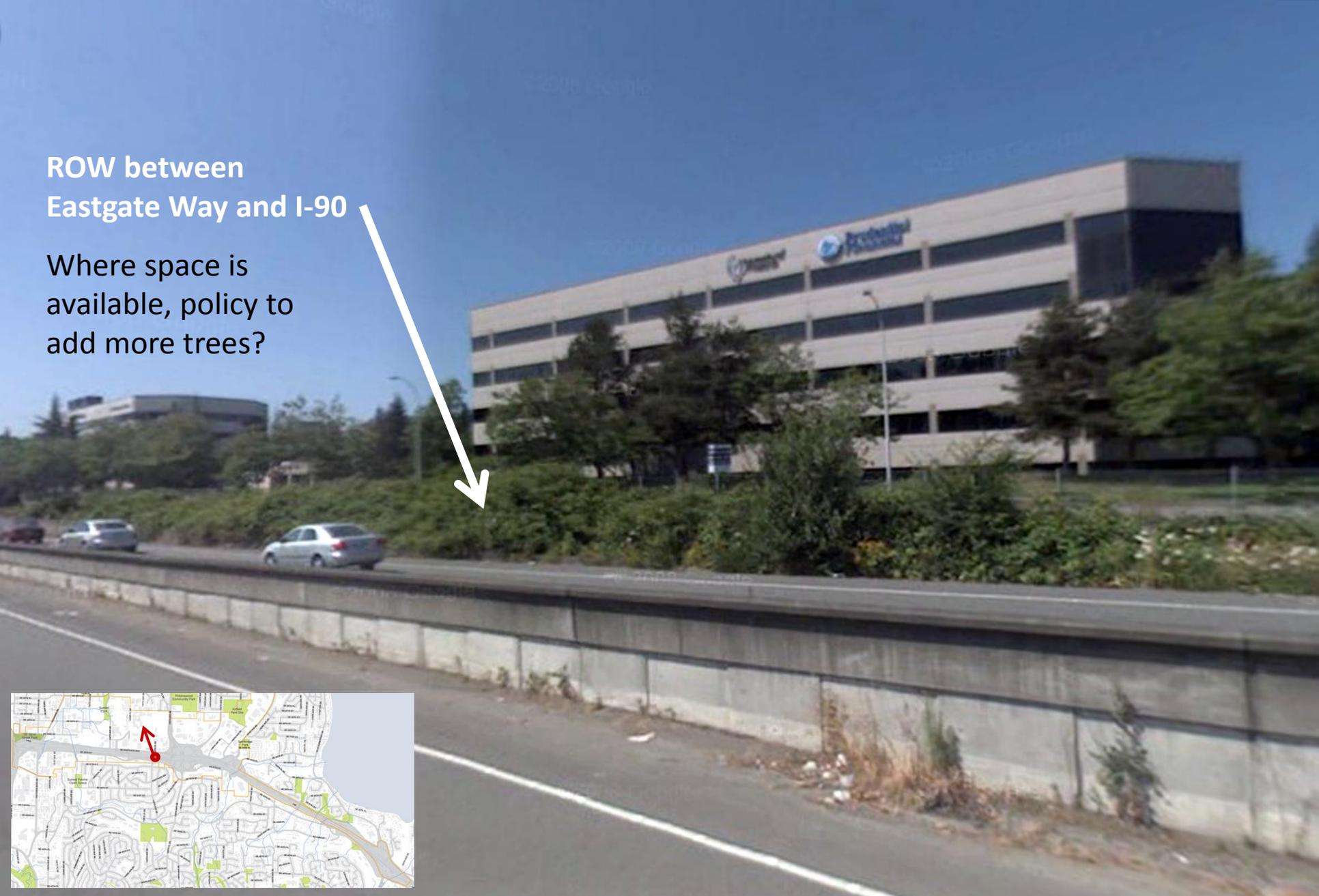
Just past 148<sup>th</sup>—taller buildings more prominent, sense of arrival



TOD area—too hard urban?

ROW between  
Eastgate Way and I-90

Where space is  
available, policy to  
add more trees?



TOD area—buildings somewhat framed by trees

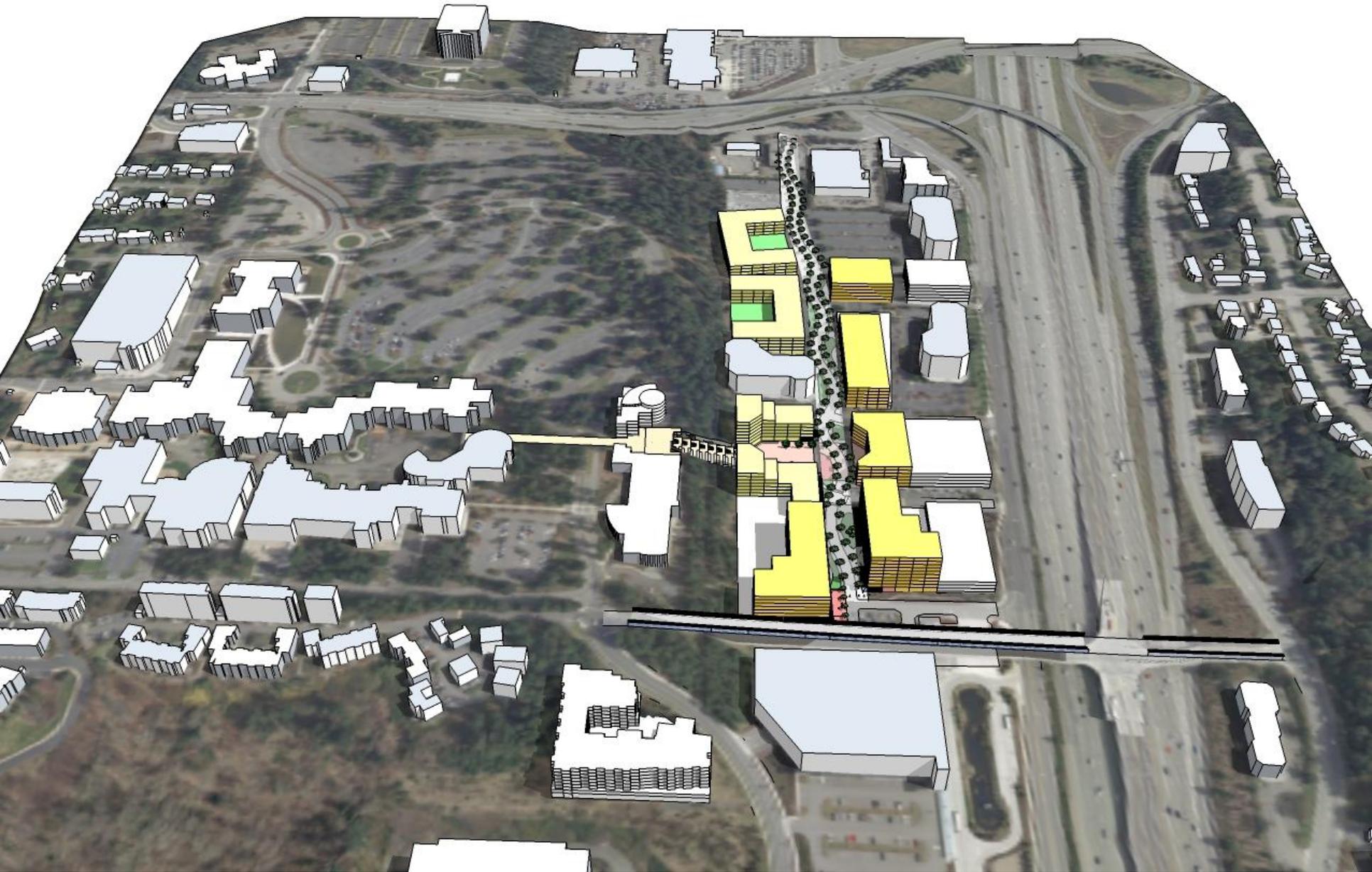
AFTER



BEFORE



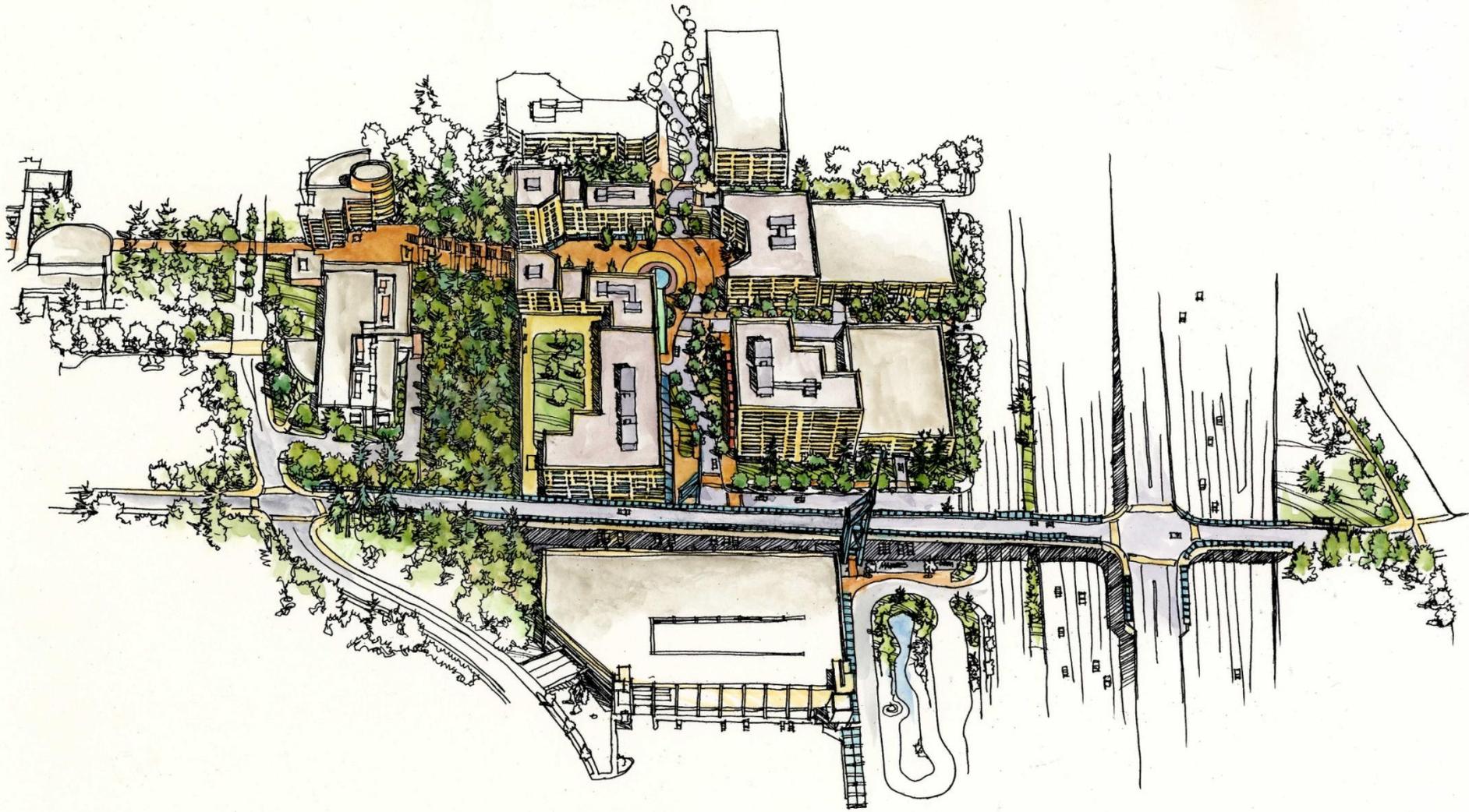
TOD area with new development (massing-only)



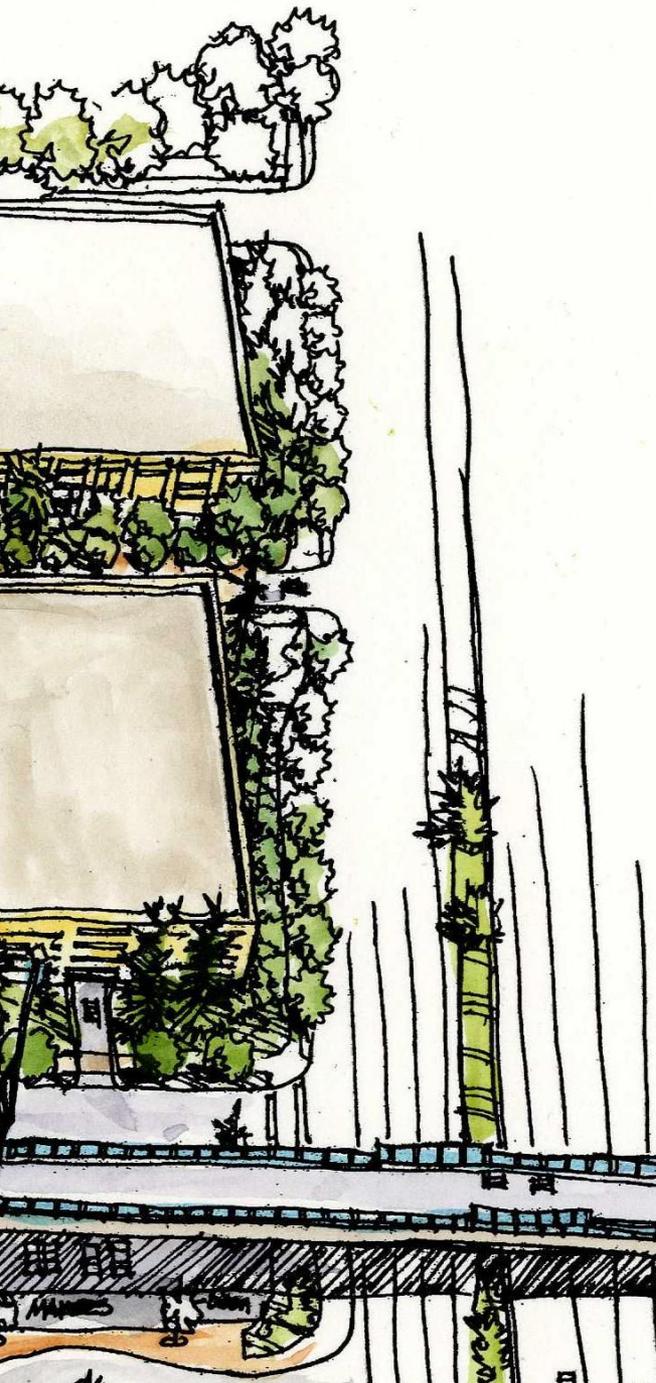
TOD area vision



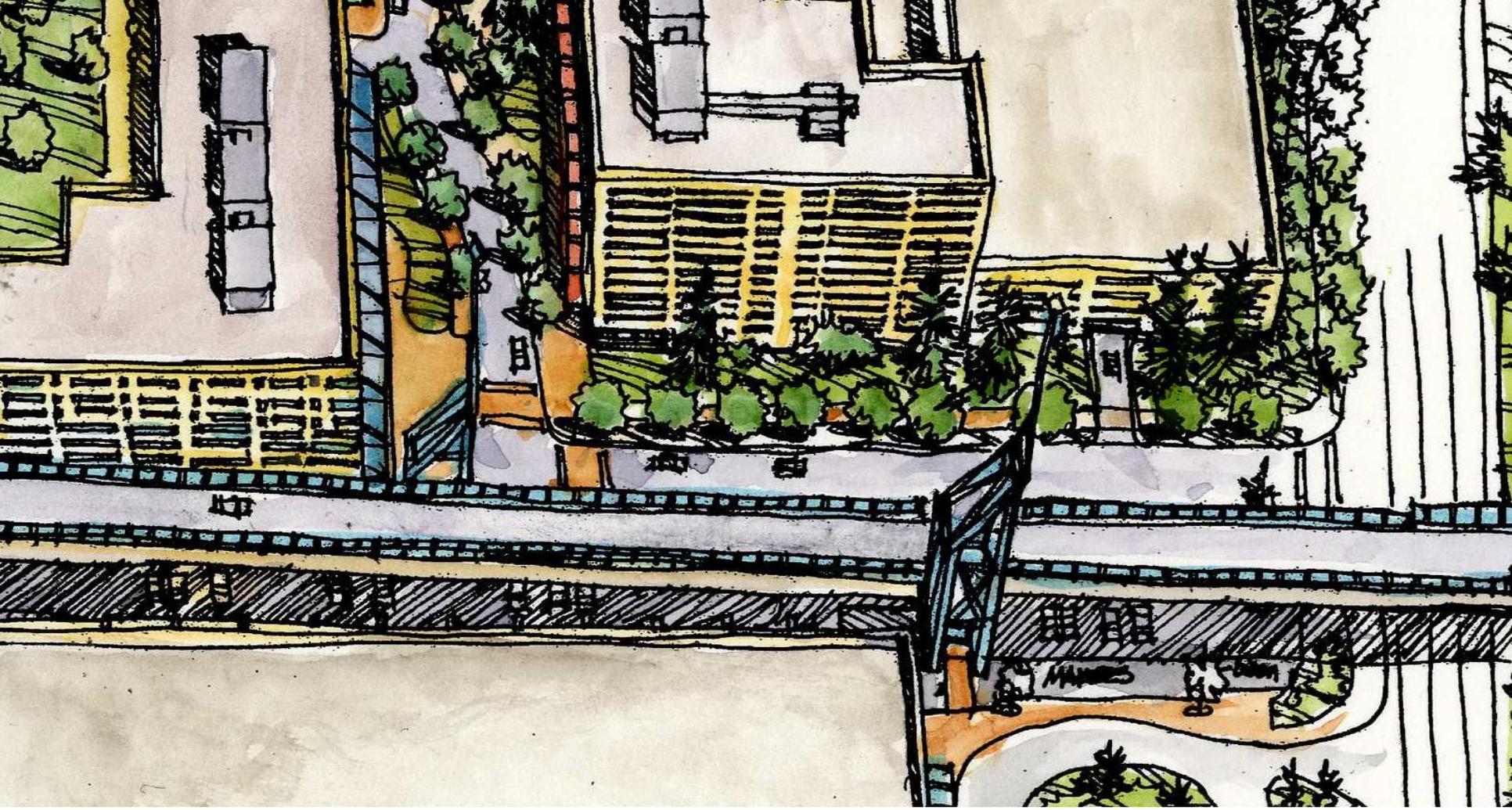
TOD area vision



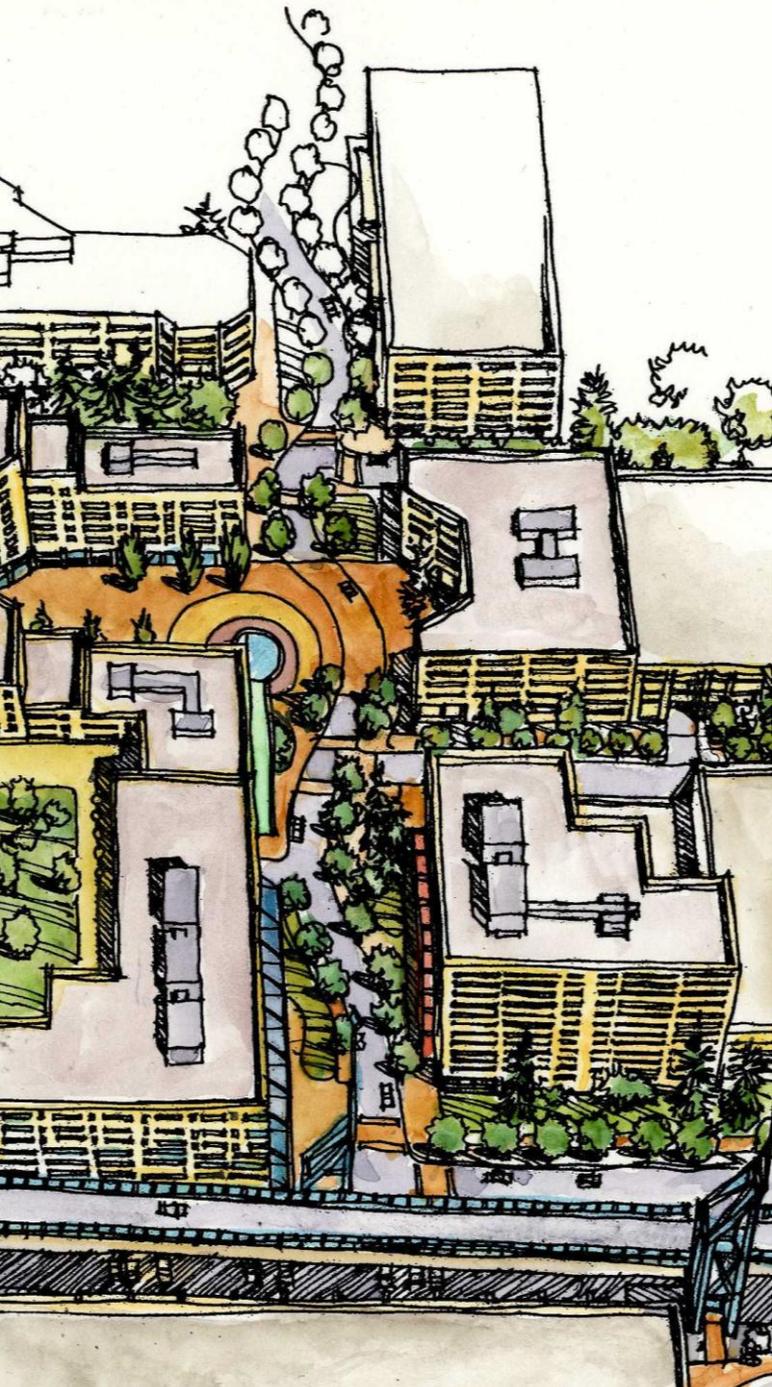
TOD area vision



- Tree and vegetative walls green parking garages facing I-90



- Vertical pedestrian connections between “main street” and 142<sup>nd</sup> PI SE
- Widened sidewalk and cover on bridge

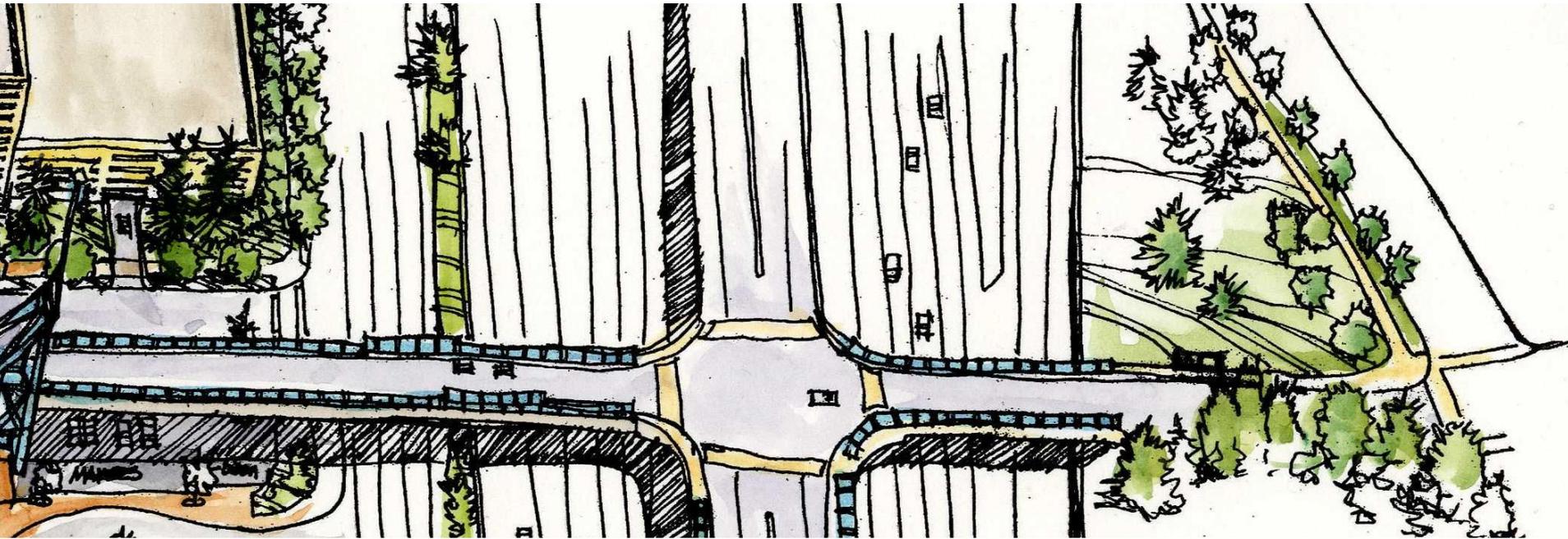


- “main street” as spine through TOD

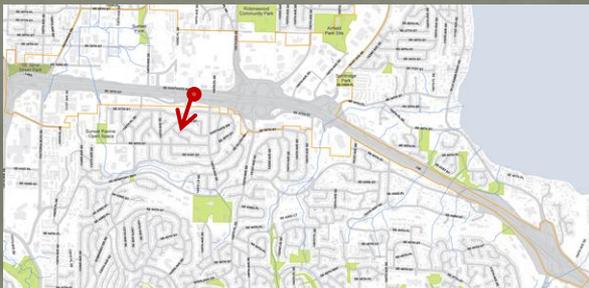




- Terraced plaza connection to Bellevue College

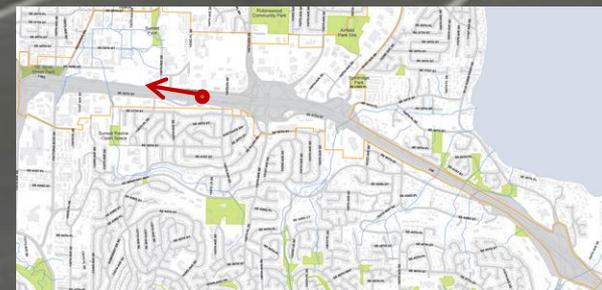


- Pedestrian and bicycle connection to Mountains to Sound Greenway Trail along SE 36<sup>th</sup> St
- Bike lane on south side of Eastgate Way



West side—city in a park look

Policy to make the proposed covered walkway a more sculptural wayfinding element?



142<sup>nd</sup> PI SE—bridge is prominent landmark (fish on other side)



Eastgate Park and Ride (wider space for trees in I-90 ROW here)



Hotel Sierra and Sunset campus—city in a park look



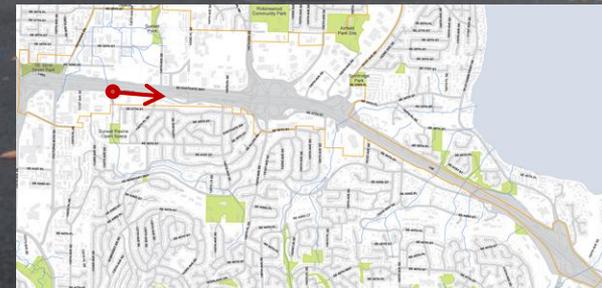
Hotel Sierra and Sunset campus—city in a park look



King County site—new development affect view?



Factoria—prominent buildings, wooded on right

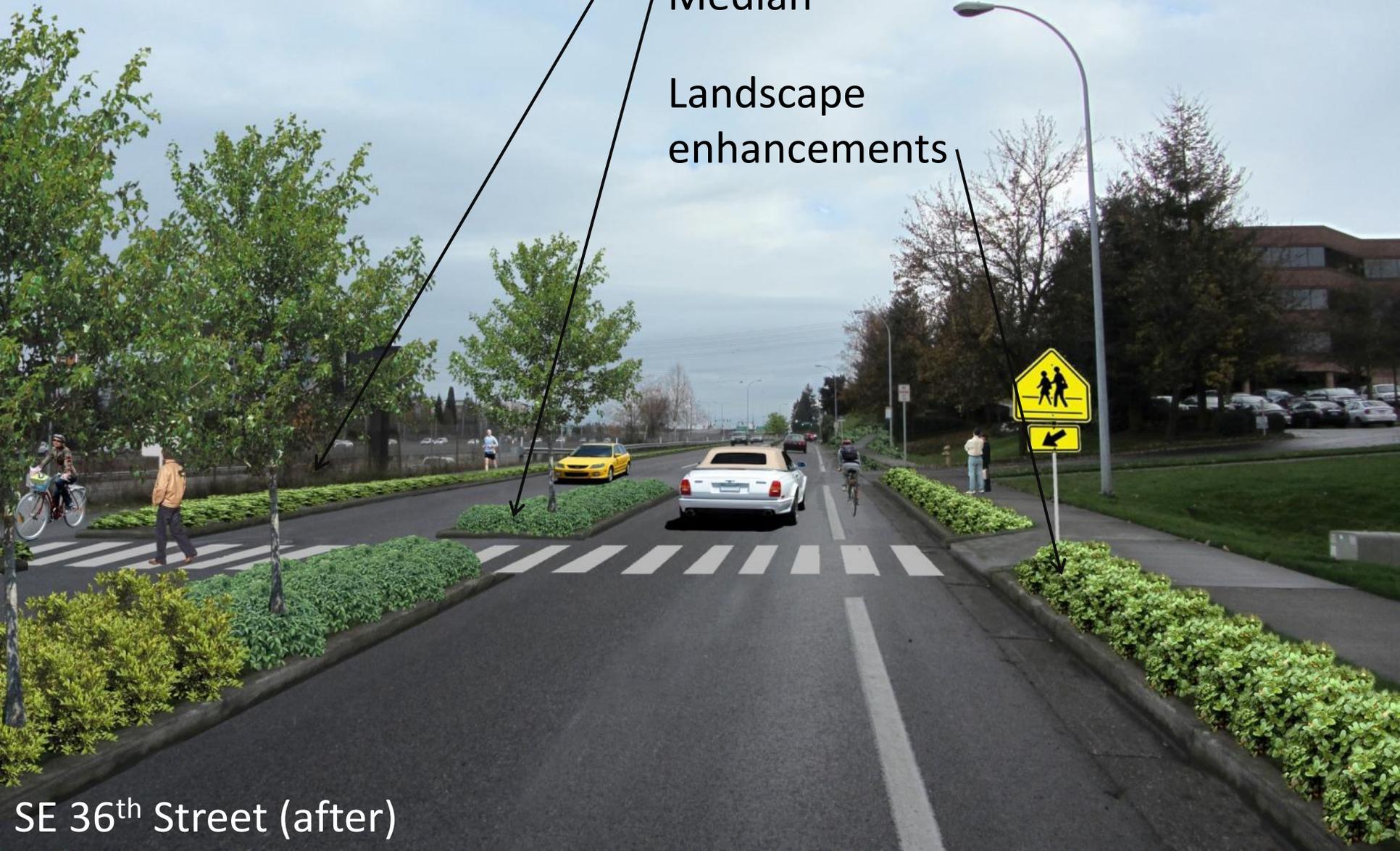


SE 36<sup>th</sup> Street (existing)

MTSG Trail

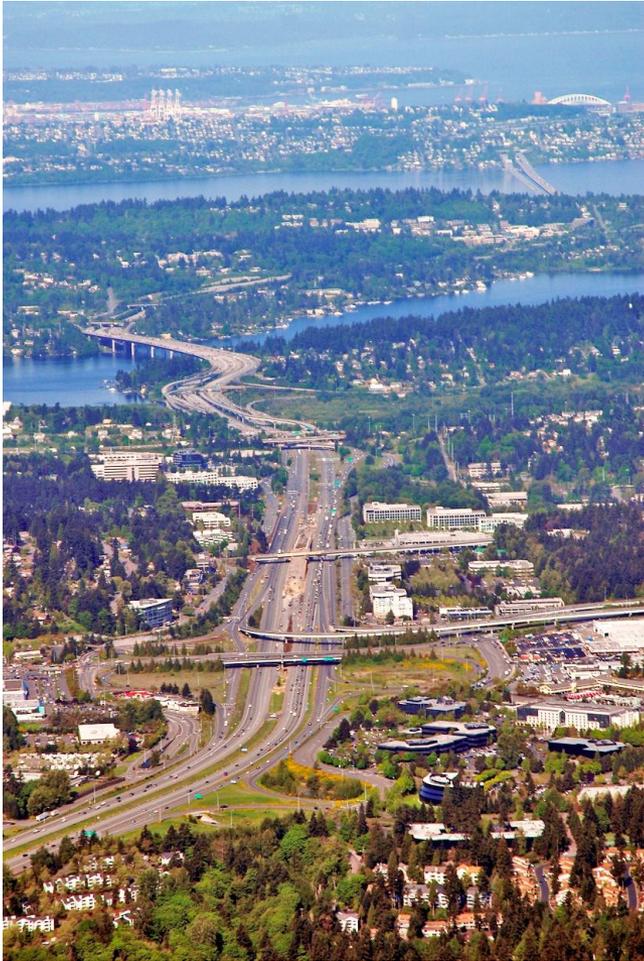
Median

Landscape  
enhancements



SE 36<sup>th</sup> Street (after)





# Eastgate/I-90

Land Use & Transportation Project

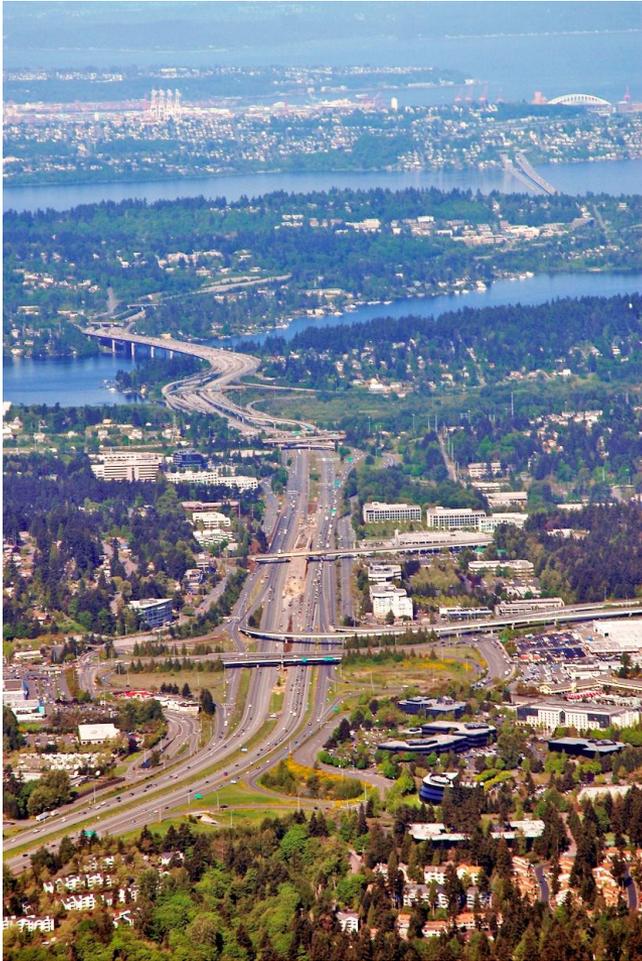
## Item 5 - Implementation



- Comprehensive Plan Amendments (CPAs)** to amend development policies
- Land Use Code Amendments (LUCAs)** to amend development regulations
- Zoning Map Amendments** to change land use district designations
- Concomitant Zoning Agreements** need to be reviewed and addressed as part of the LUCA process
- Timing of Amendments** – Simultaneous, sequenced, phased adoption of amendments
- State Environmental Policy Act (SEPA)** compliance

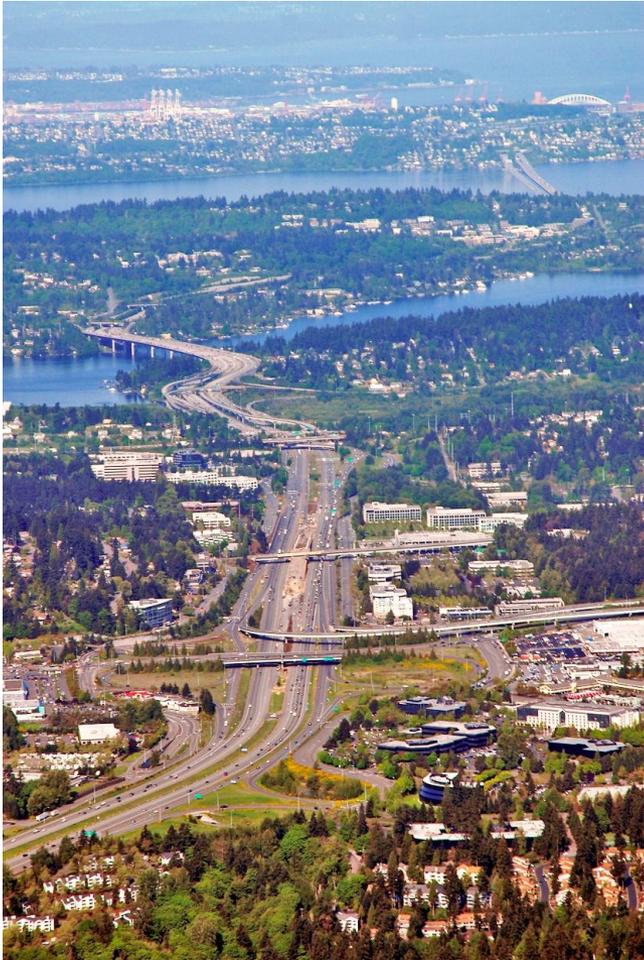


- ❑ **Building height and FAR recommendations** should be refined through the LUCA process to make sure they achieve the desired vision
- ❑ **Design guidelines** to ensure high quality design, particularly in highly visible areas or close to neighborhoods
- ❑ **Sustainable design solutions** incorporated into building and site design (e.g., LEED, Built Green, Energy Smart)

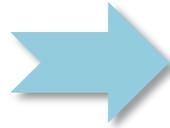
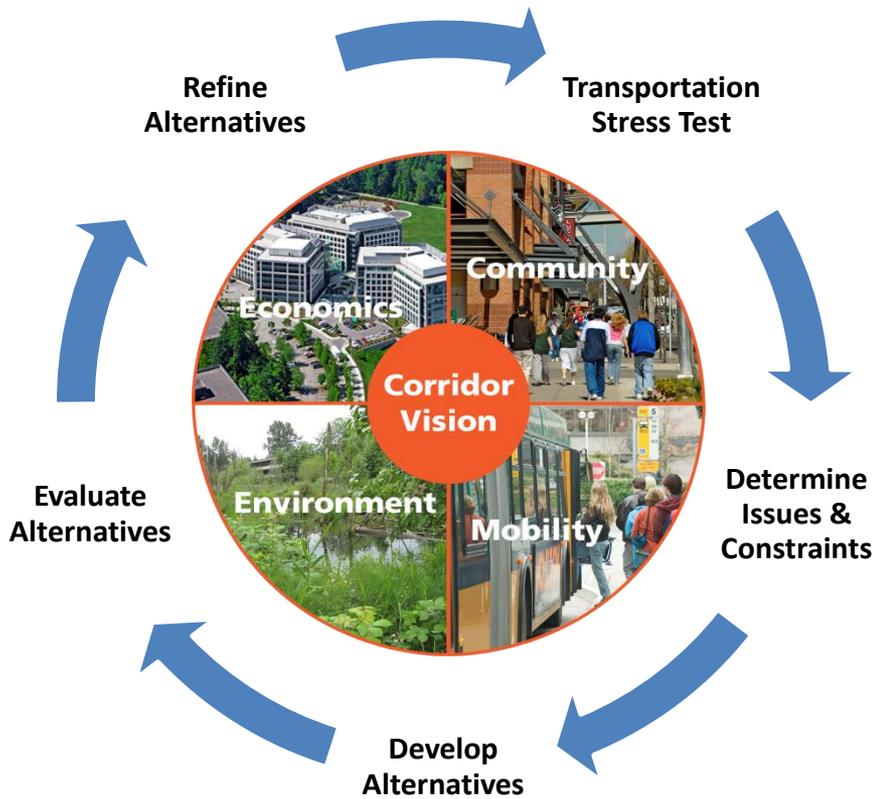


- Infrastructure to support new development** should exist within reasonable amount of time
- Increased development potential should contribute to public benefits.** Mechanism for same to be developed as part of the LUCA process
- Substantial portion of office and residential growth** should be directed to TOD center

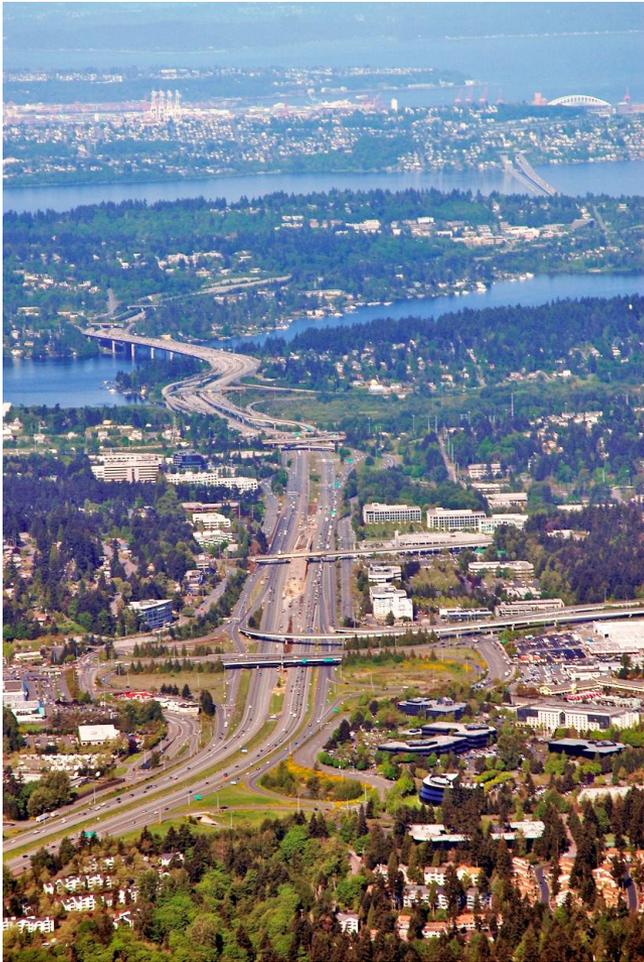




- ❑ **TOD should achieve or include:**
  - ❑ High quality urban design
  - ❑ Mix of uses – office, residential, retail
  - ❑ Integration of transit service; strong physical connection with park-and-ride
  - ❑ Walkable site design, ped-scale streets, ped-oriented street-level uses
  - ❑ Strong relationship with Bellevue College
  - ❑ Public open spaces and amenities
  - ❑ Motorized and non-motorized connections
  
- ❑ **TOD development above an FAR of 0.5 should:**
  - ❑ Occur according to a Master Plan
  - ❑ Include ground-floor retail
  - ❑ Provide public benefits
  - ❑ Ensure availability of transportation improvements
  - ❑ Include substantial residential component



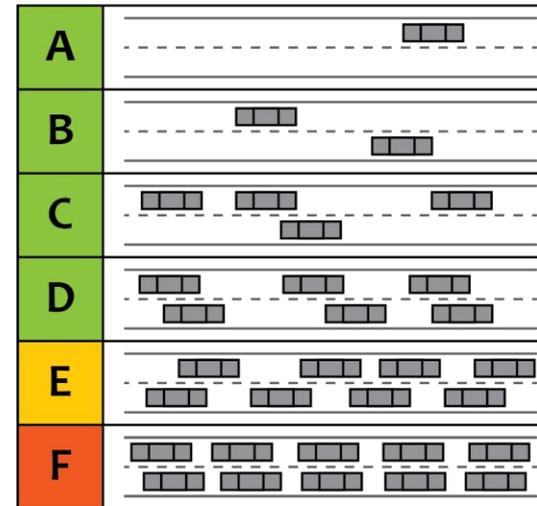
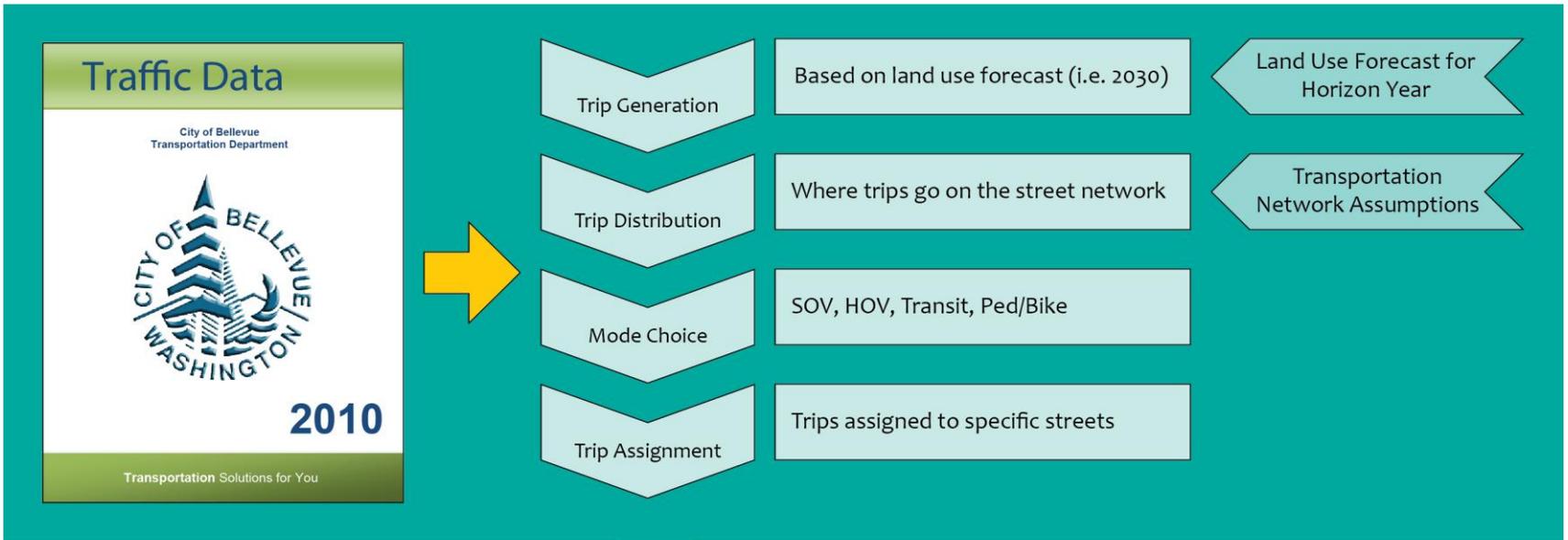
- Travel Demand Modeling
- Transportation Strategy
- Project Costs & Benefits
- Implementation Considerations

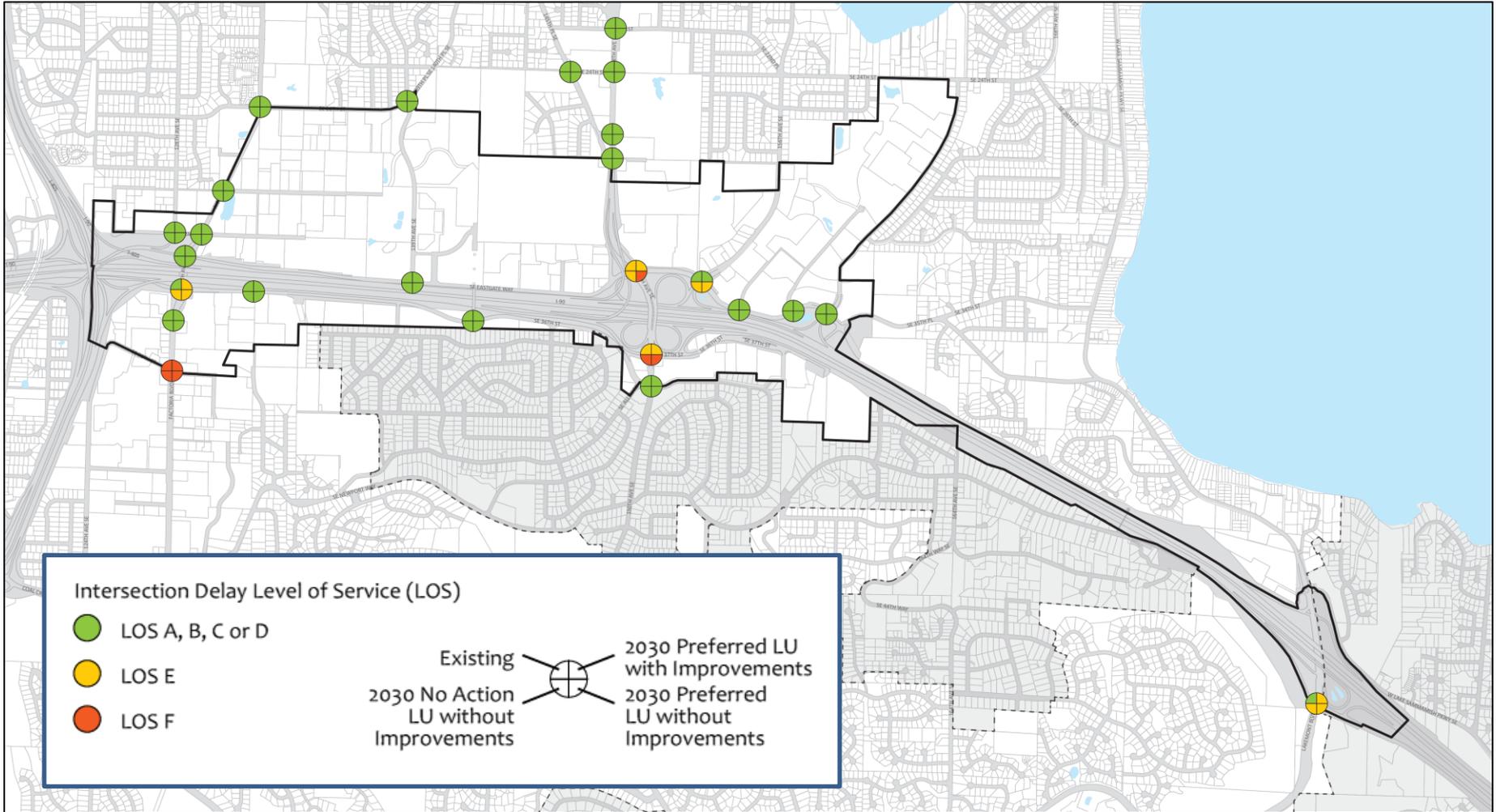


# *Travel Demand Modeling*

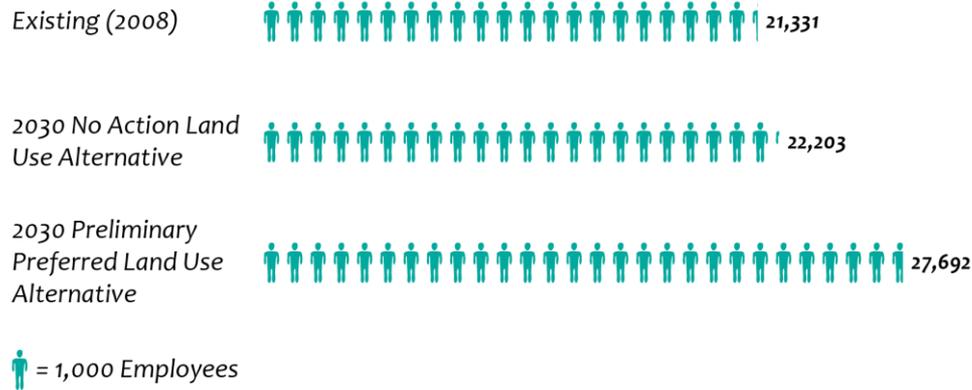


**Eastgate/I-90**  
Land Use & Transportation Project





## Corridor-Wide Employment Comparison



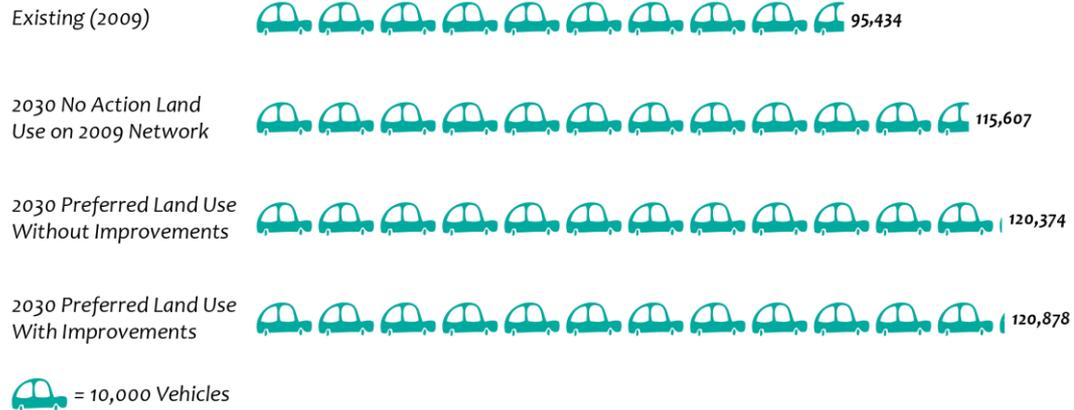
## Corridor-Wide Residential Population Comparison



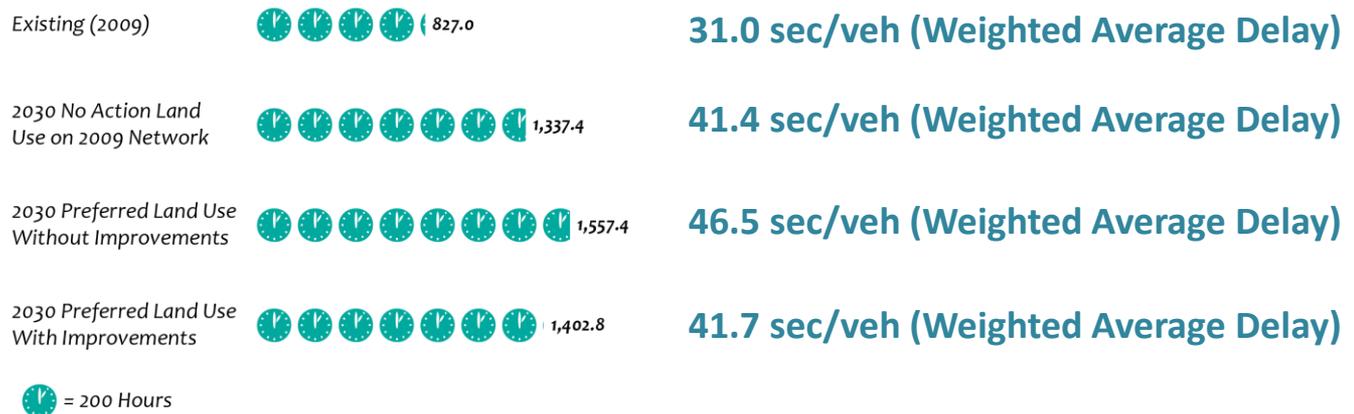
Numbers incorporate all affected TAZs; study area somewhat smaller.



## Total Entering Volume in PM Peak Hour (Weekday) @ 44 Intersections

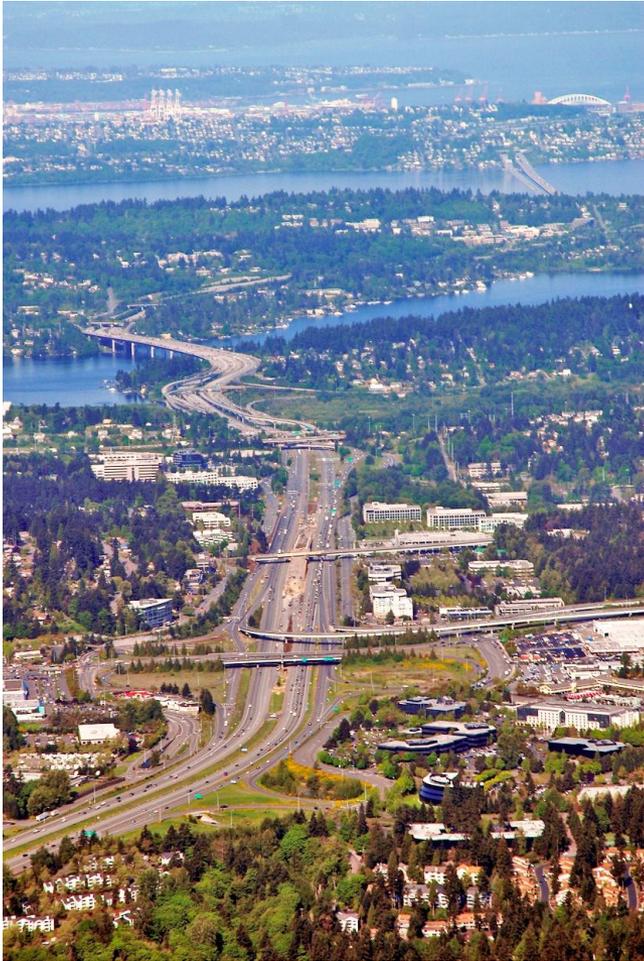


## Total Delay Hours in PM Peak Hour (Weekday) @ 44 Intersections



Numbers incorporate all affected TAZs; study area somewhat smaller.





# *Transportation Strategy*



**Eastgate/I-90**  
Land Use & Transportation Project

"Not enough transit service in the surrounding neighborhoods (the Park & Ride is great, but good luck getting over there, even if you live within a 3-mile radius)."

"Start planning now for possible Sound Transit 3—future Light Rail expansion to Eastgate P&R/Bellevue College, Eastgate Business District, and eastwards to Issaquah Transit Center, Downtown Issaquah, Issaquah Highlands, and Sammamish."

"Lack of transportation alternatives. Would like to walk and bike and use the bus to get places, but cars are the only practical choice right now."

"The most needed improvement to urban design is directional signage to help drivers exiting or accessing freeways, to locate businesses, to connect between centers and to adjacent areas."

"Remember it is more than just traffic flow—this is a neighborhood! I would like to see safer bicycle lanes on the frontage roads."

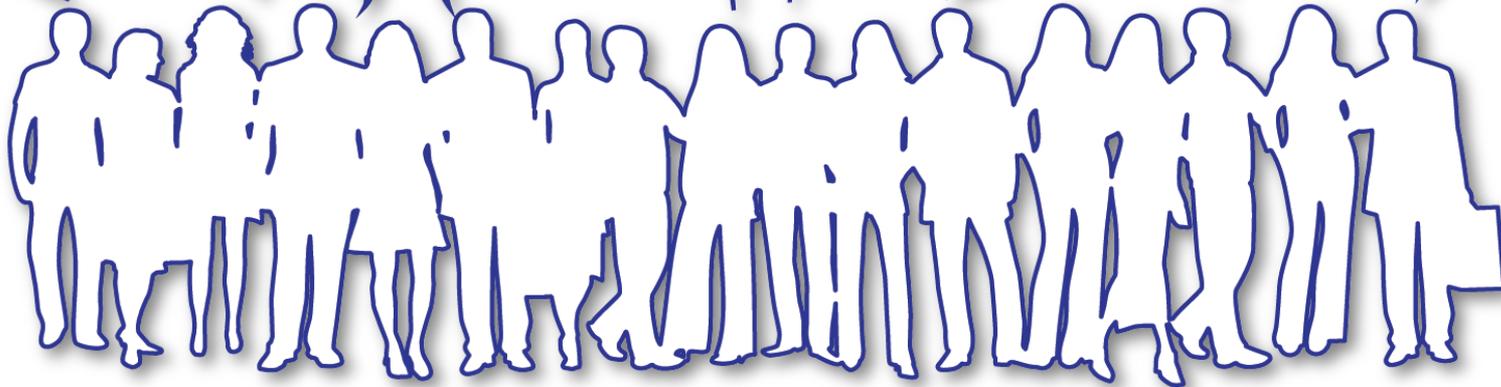
"Eastgate Park and Ride is an important asset. It should be considered a transit center with more employment and residential uses created within a short walk from the station."

"I-90 trail has a substantial gap that forces users to ride on the very busy road or along sidewalks with busy driveway access. I understand that a separate trail that connects the facilities would be very costly but it would be fabulous."

Vision "We have plenty of connectivity with 405 and I-90 already. What we need is better intra Eastgate connectivity, and better flow between Eastgate and areas north of I-90 and west of 405—the more bridges, the better."

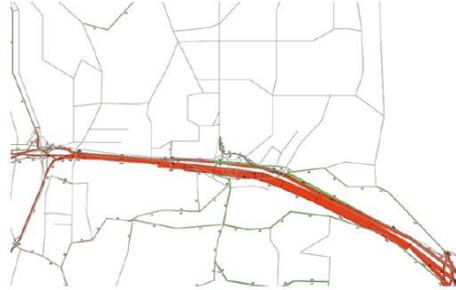
"Don't increase density without increasing road capacities."

"Bus transit through Bellevue College takes too long."





Travel Demand Analysis



Delta Plots



Outreach



Micro-Simulations

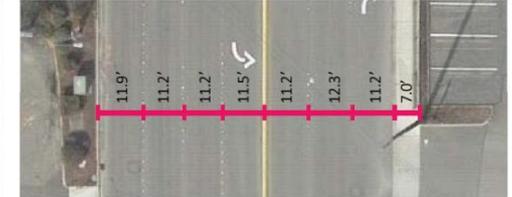


Turning Movements



Dimensions of Area Under 142nd Ave SE Bridge

Field Work



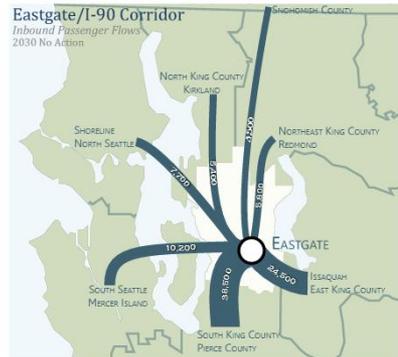
Existing Road Geometry



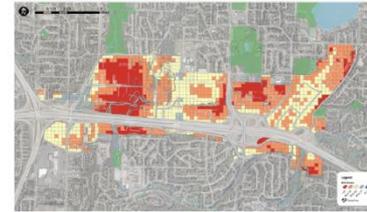
Route Productivity Analysis



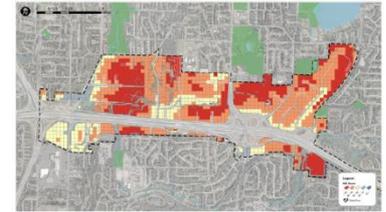
Coordination with Partners



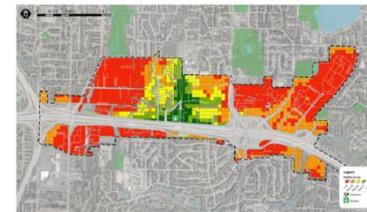
Flow Map Analysis



Non-Motorized RDI Score



Vehicular RDI Score



HCT ViaCity Score

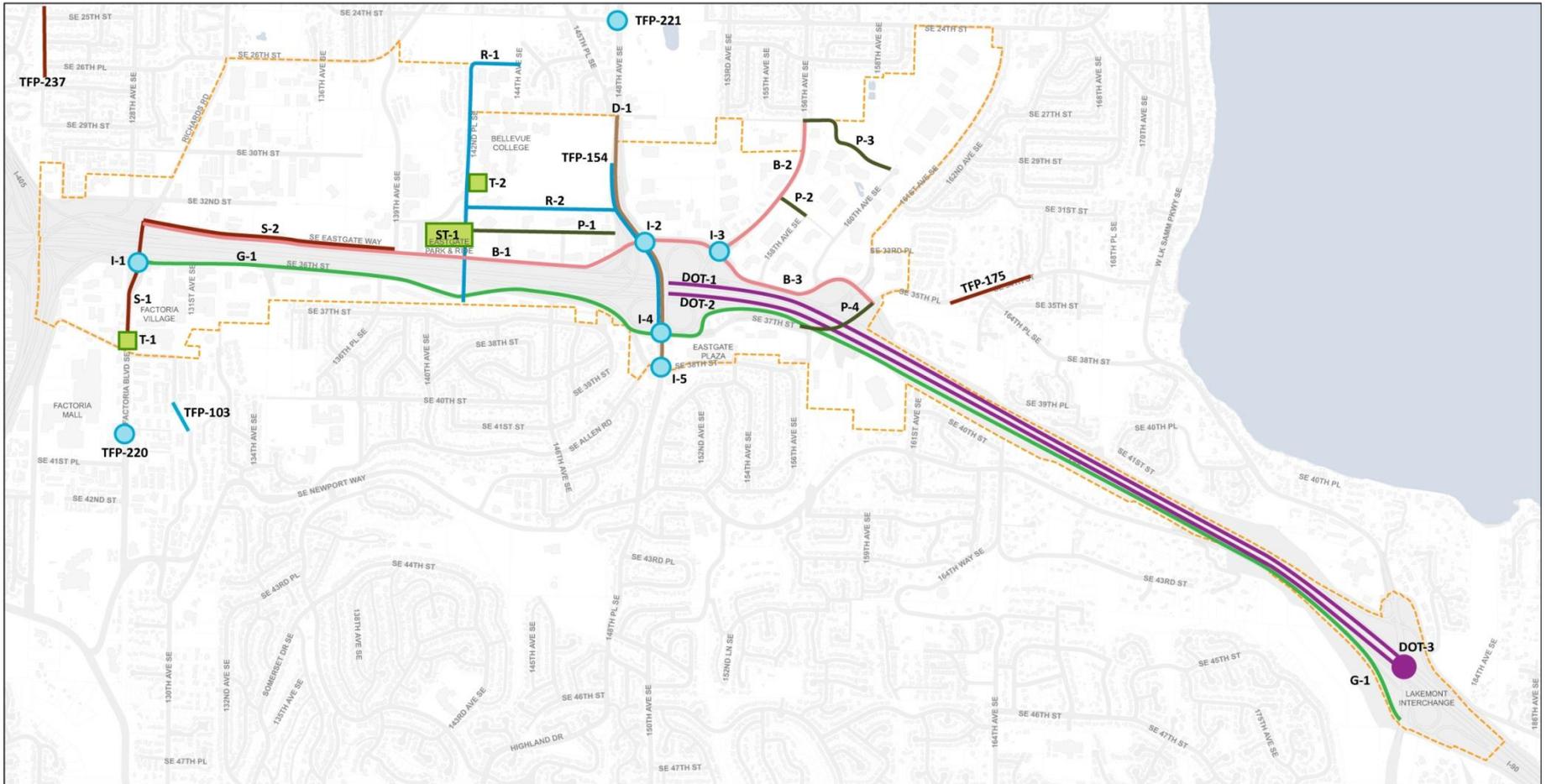
**ADD CAPACITY  
STRATEGICALLY**

**MANAGE  
DEMAND**

**OPERATE  
EFFICIENTLY**

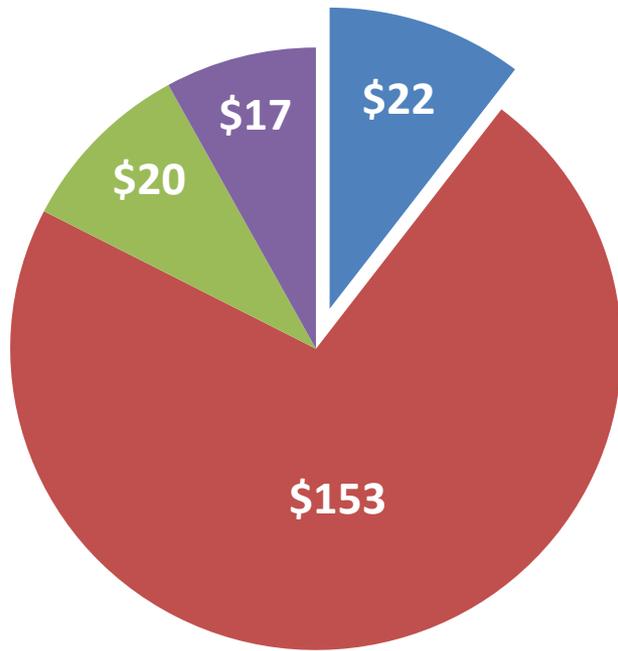


# Transportation Strategies Report: Appendix A



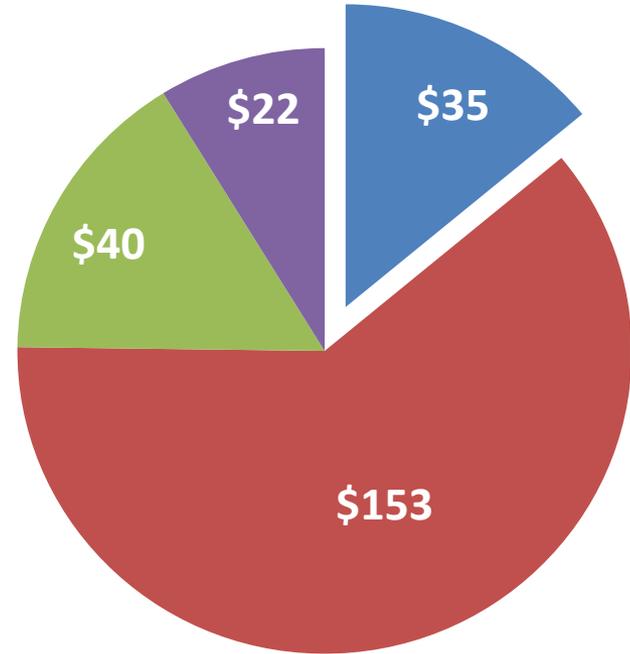
- Sidewalk
- Bicycle
- Roadway
- Boulevard treatment
- Transit
- Off-street path
- Mountains to Sound Greenway Trail
- Intersection
- Interstate/interchange

**Low = \$212M**

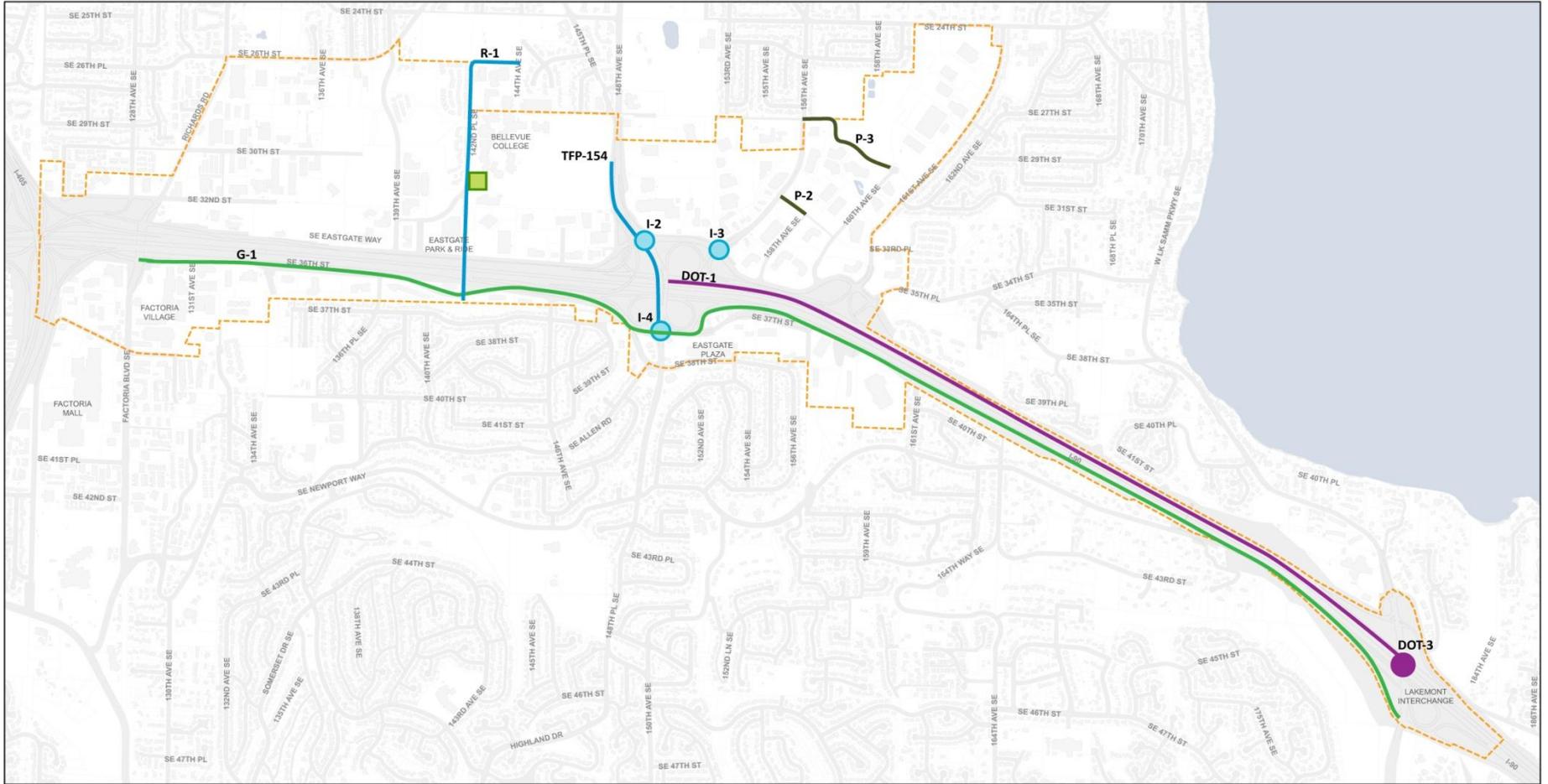


■ Arterial ■ I-90 ■ Ped/Bike ■ Transit  
10% 72% 9% 8%

**High = \$250M**

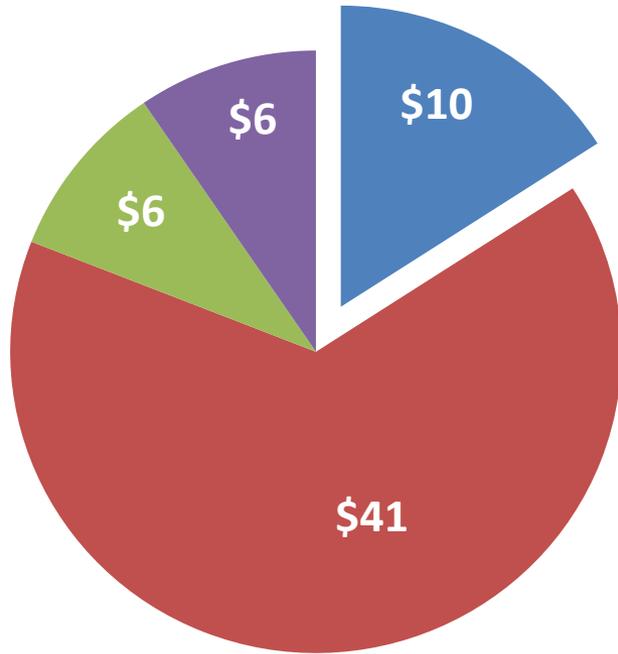


■ Arterial ■ I-90 ■ Ped/Bike ■ Transit  
14% 61% 16% 9%



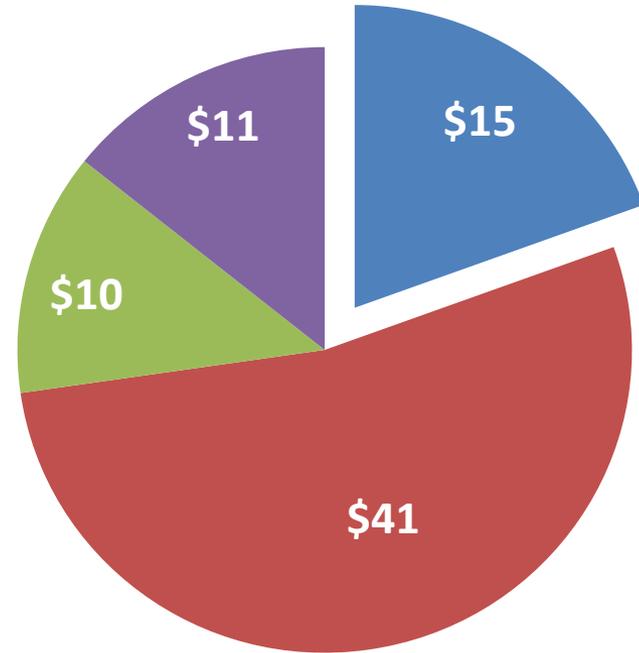
- Sidewalk
- Bicycle
- Roadway
- Boulevard treatment
- Transit
- Off-street path
- Mountains to Sound Greenway Trail
- Intersection
- Interstate/interchange

**Low = \$63M**

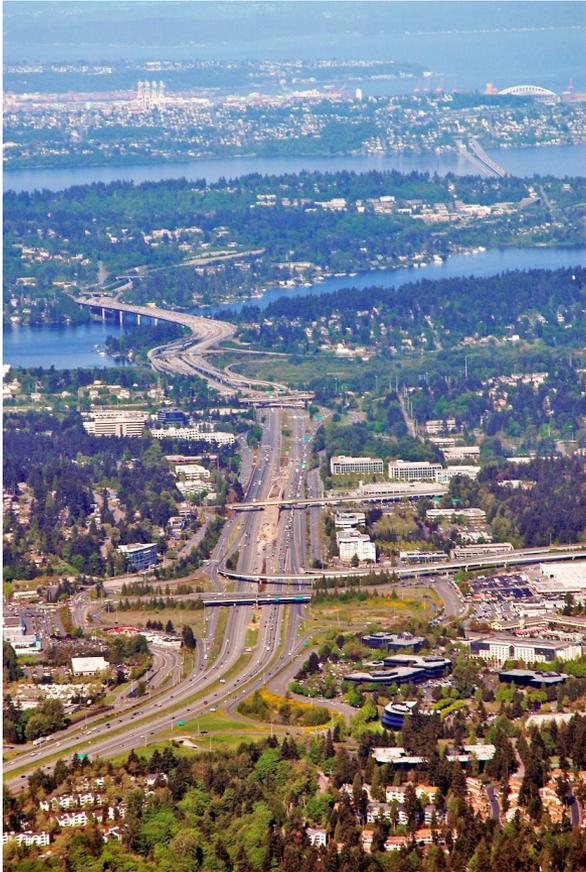


■ Arterial ■ I-90 ■ Ped/Bike ■ Transit  
16% 65% 10% 10%

**High = \$77M**



■ Arterial ■ I-90 ■ Ped/Bike ■ Transit  
19% 53% 13% 14%



# *Arterial Improvements: Costs/Benefits*

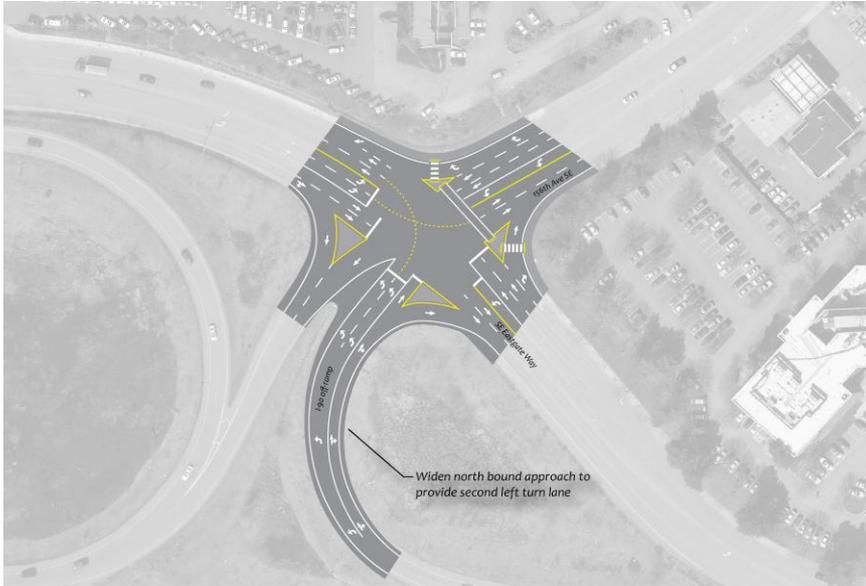


**Eastgate/I-90**  
Land Use & Transportation Project



# Project I-3: 156th Avenue SE at SE Eastgate Way (I-90 WB off-ramp)

Transportation Strategies Report: pages 21-22 and A53-A54



**Option A: \$880,000 (COB estimate, 2011)**

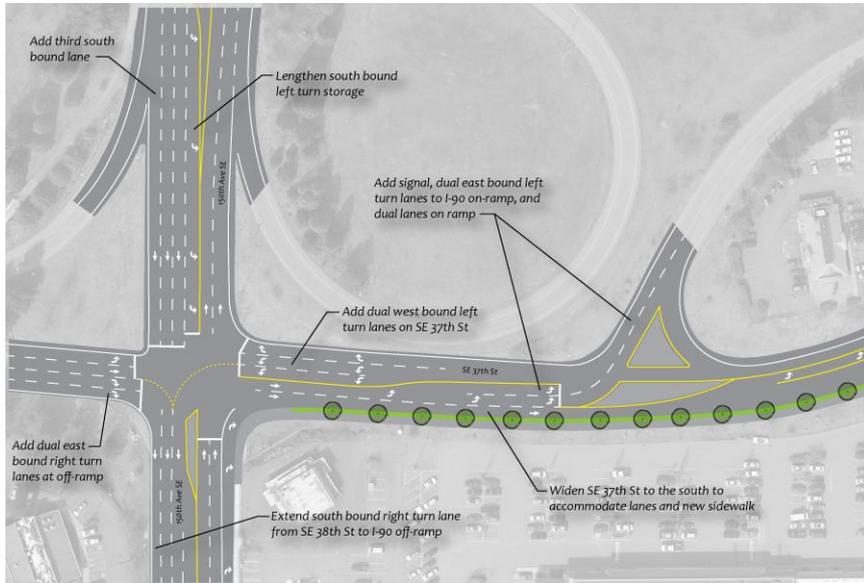


**Option B: \$3,700,000 (COB estimate, 2011)**

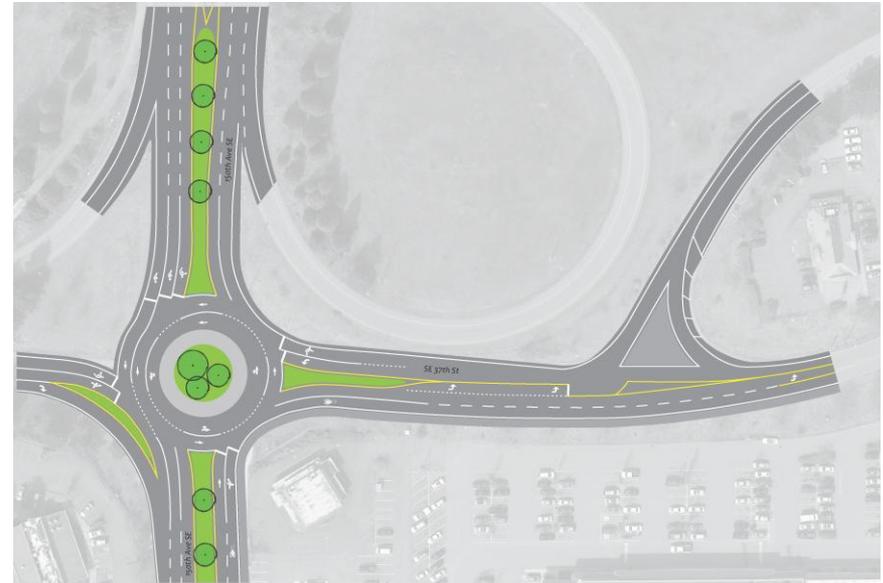
(ID) Intersection	Existing (2009) LOS	2030 No Action LU on 2009 Network		2030 Preferred Land Use Without Transportation Improvements			2030 Preferred Land Use With Transportation Improvements		
		LOS	% Change from Existing (2009)	LOS	% Change from Existing (2009)	% Change from 2030 No Action	LOS	% Change from Existing (2009)	% Change from 2030 No Action
(86) 156th Ave SE and SE Eastgate Way	54 sec/veh LOS D	60 sec/veh LOS E	11% increase	64 sec/veh LOS E	19% increase	7% increase	53 sec/veh LOS D	2% reduction	12% reduction

# Project I-4: 150th Avenue SE/ I-90 Eastbound Off-Ramp and SE 37th Street

Transportation Strategies Report: pages 22-24 and A55-A56



**Option A: \$3,355,000 (COB estimate, 2011)**

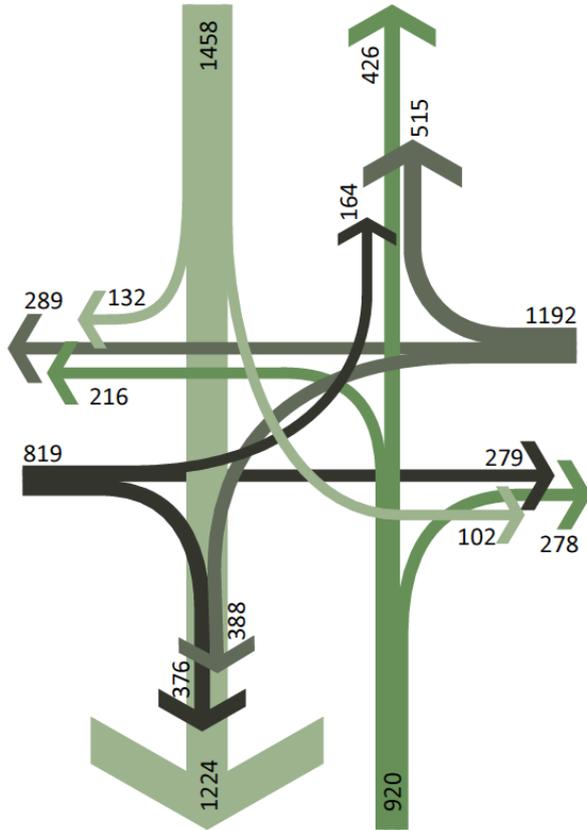


**Option B: \$3,255,000 (COB estimate, 2011)**

(ID) Intersection	Existing (2009) LOS	2030 No Action LU on 2009 Network		2030 Preferred Land Use Without Transportation Improvements			2030 Preferred Land Use With Transportation Improvements		
		LOS	% Change from Existing (2009)	LOS	% Change from Existing (2009)	% Change from 2030 No Action	LOS	% Change from Existing (2009)	% Change from 2030 No Action
(227) 150th Ave SE and EB I-90 Off-Ramp	79 sec/veh LOS E	137 sec/veh LOS F	73% increase	139 sec/veh LOS F	76% increase	1% increase	57 sec/veh LOS E	28% reduction	58% reduction

# Project TFP-154: 148th Avenue SE/150th Avenue SE Third Southbound Lane

Transportation Strategies Report: pages 24 and A57



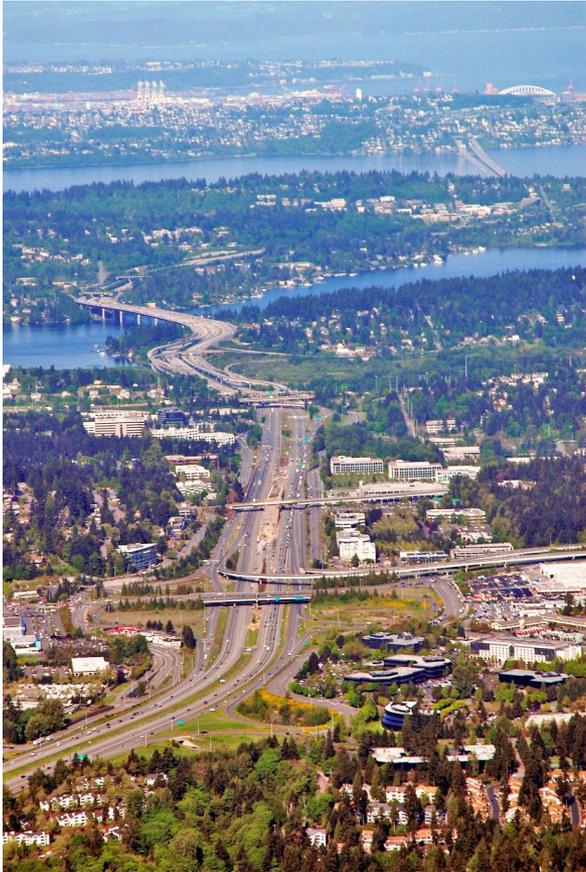
2009 PM Peak (17:00-18:00) Volumes  
150<sup>th</sup> Ave SE & Eastgate Way (#101)



Eastgate/I-90 Corridor Study (2002)

TFP-154 widens 148th Avenue SE by extending the third southbound lane from the on-ramp to westbound I-90 to the 150th Avenue SE overpass where it would merge with the existing third southbound lane (the overpass of I-90 already has three lanes).

**\$2,200,000**  
(COB estimate, 2011)



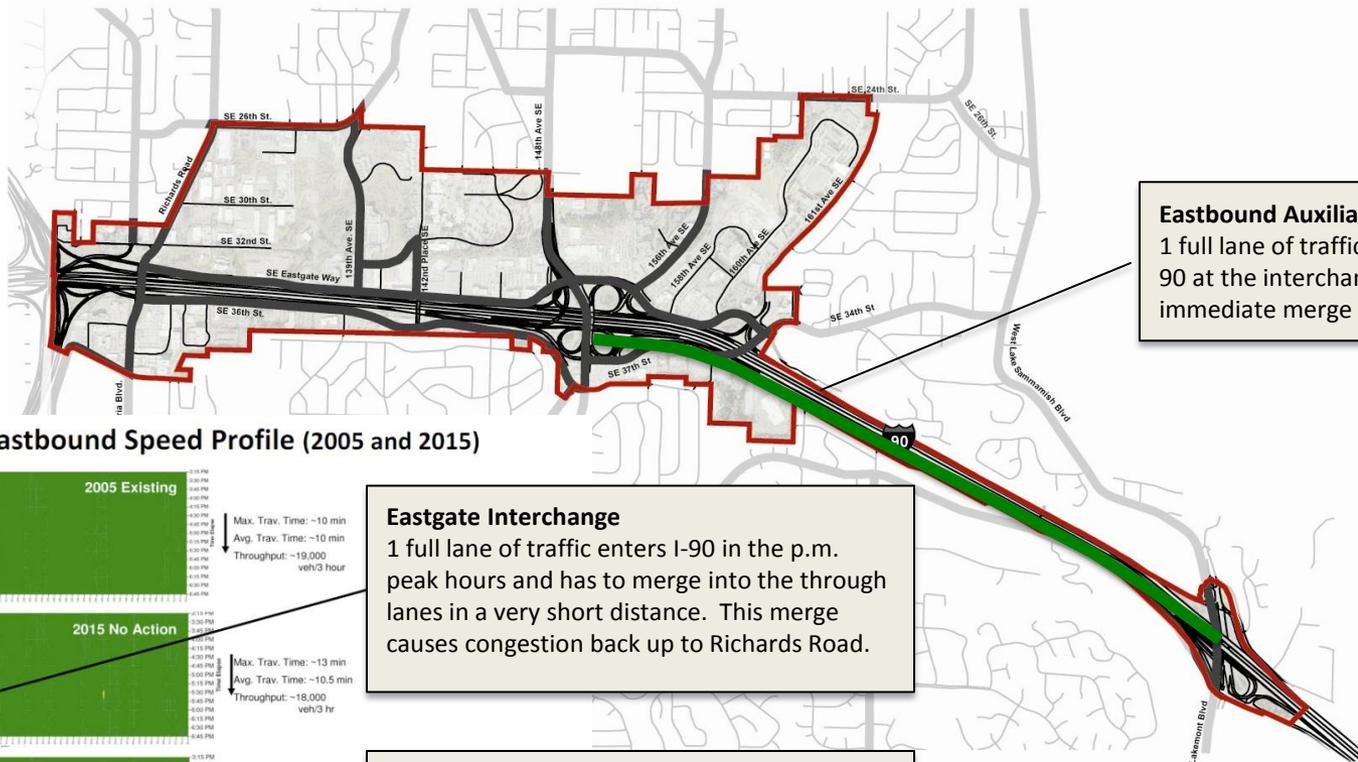
# *Interstate Improvements: Costs/Benefits*



**Eastgate/I-90**  
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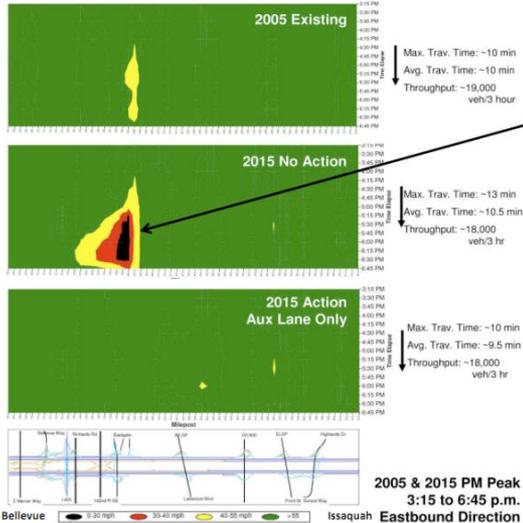
# DOT-1: EB Auxillary Lanes from Eastgate to Lakemont Interchange

Transportation Strategies Report: pages 25-27



**Eastbound Auxiliary Lane**  
1 full lane of traffic enters Eastbound I-90 at the interchange and has an immediate merge on to the mainline.

I-90 Eastbound Speed Profile (2005 and 2015)



**Eastgate Interchange**  
1 full lane of traffic enters I-90 in the p.m. peak hours and has to merge into the through lanes in a very short distance. This merge causes congestion back up to Richards Road.

By providing an eastbound Auxiliary Lane, vehicles will have more space to enter the mainline traffic resulting a smoother merge and less congestion at this point.

**\$33,000,000**  
*(WSDOT estimate, 2011)*

INTERSTATE 90 I-90 Bellevue to North Bend Corridor Study

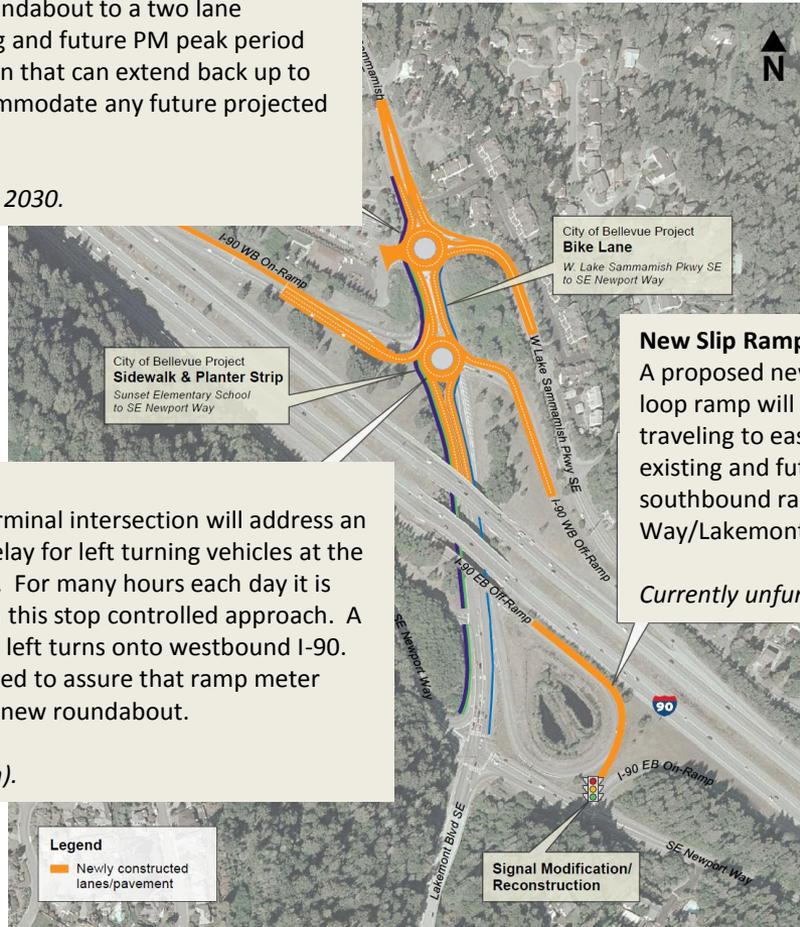
# DOT-1: EB Auxillary Lanes from Eastgate to Lakemont Interchange

Transportation Strategies Report: pages 25-27

## Existing Roundabout

Expand the existing single lane roundabout to a two lane roundabout to address the existing and future PM peak period queues in the southbound direction that can extend back up to Vasa Park. In addition, it will accommodate any future projected traffic growth in the area.

*Currently unfunded and needed by 2030.*



## New Roundabout

A new roundabout at this ramp terminal intersection will address an existing and future queuing and delay for left turning vehicles at the I-90 westbound off-ramp terminal. For many hours each day it is difficult to make this left turn from this stop controlled approach. A new roundabout will also facilitate left turns onto westbound I-90. Additional ramp widening is required to assure that ramp meter queues do not extend back to this new roundabout.

*Currently funded (2013 completion).*

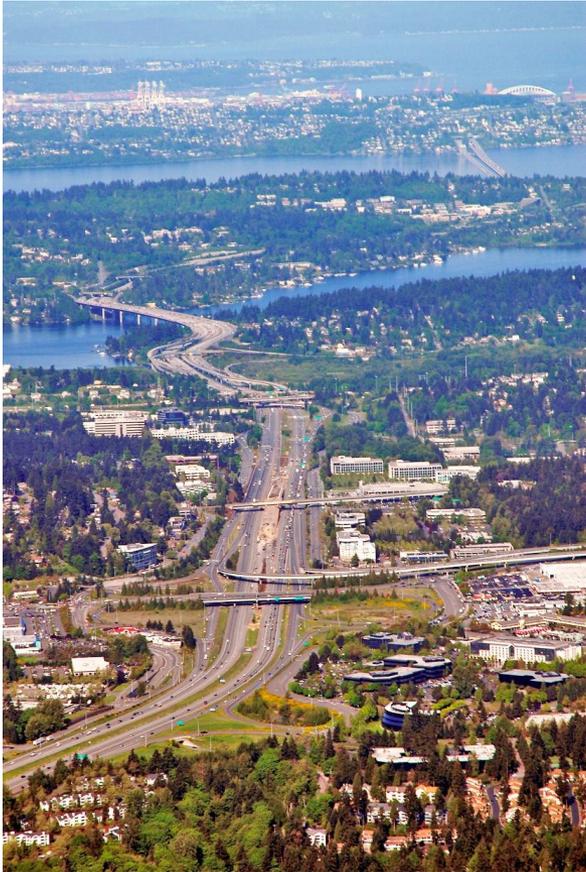
## New Slip Ramp

A proposed new slip ramp off the eastbound to northbound loop ramp will provide a more direct connection for traffic traveling to eastbound Newport Way. This will reduce both existing and future congestion and delay at the eastbound to southbound ramp terminal as well as at the SE Newport Way/Lakemont Blvd. SE intersection.

*Currently unfunded and needed by 2030.*

**\$8,000,000**  
*(WSDOT estimate, 2011)*

INTERSTATE 90 I-90 Bellevue to North Bend Corridor Study



# *Transit Improvements: Costs/Benefits*



**Eastgate/I-90**  
Land Use & Transportation Project

## R-1: 142<sup>nd</sup> Place SE Transit Emphasis Corridor

Transportation Strategies Report: pages 29-33 and A63-A93



**A covered/widened walkway on the 142nd Place SE bridge will improve transit operations at the direct access ramp and at the intersection with SE 36th Street North of the 142nd Place SE bridge, improvements would be made on Snoqualmie River Road, which includes upgraded pavement to support buses, sidewalks, and accessible bus stops.**

*Plan Range: \$5M to \$9.9M  
(COB estimate, 2011)*

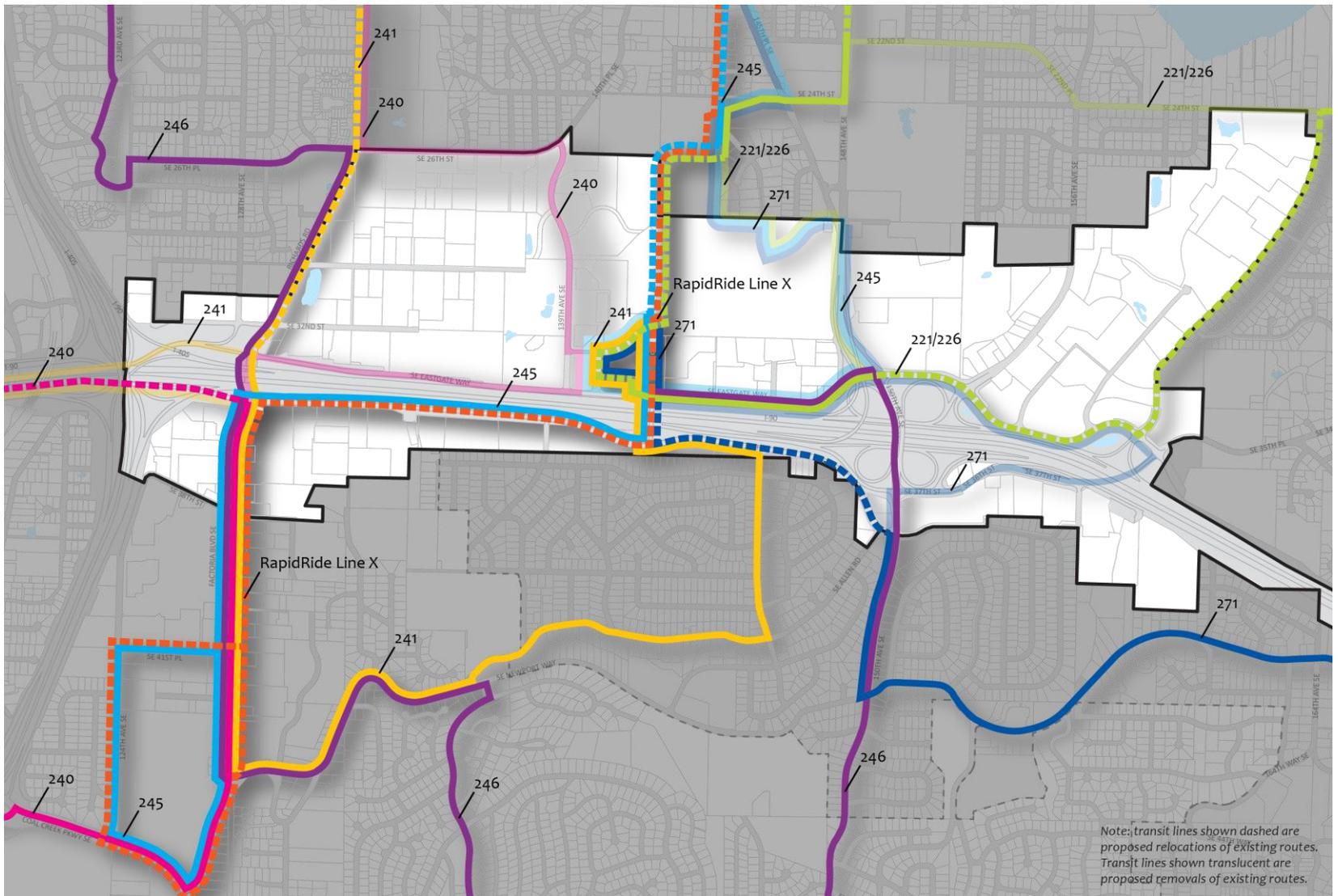
## T-2: Bellevue College Transit Center

Transportation Strategies Report: pages 29-33 and A63-A93



**Work with Bellevue College (BC) and transit partners to develop a BC Transit Center that reinforces the campus as an all-day transit hub with enhanced bus service connections to and through Bellevue College**

**Plan Range: < \$1M  
(COB estimate, 2011)**

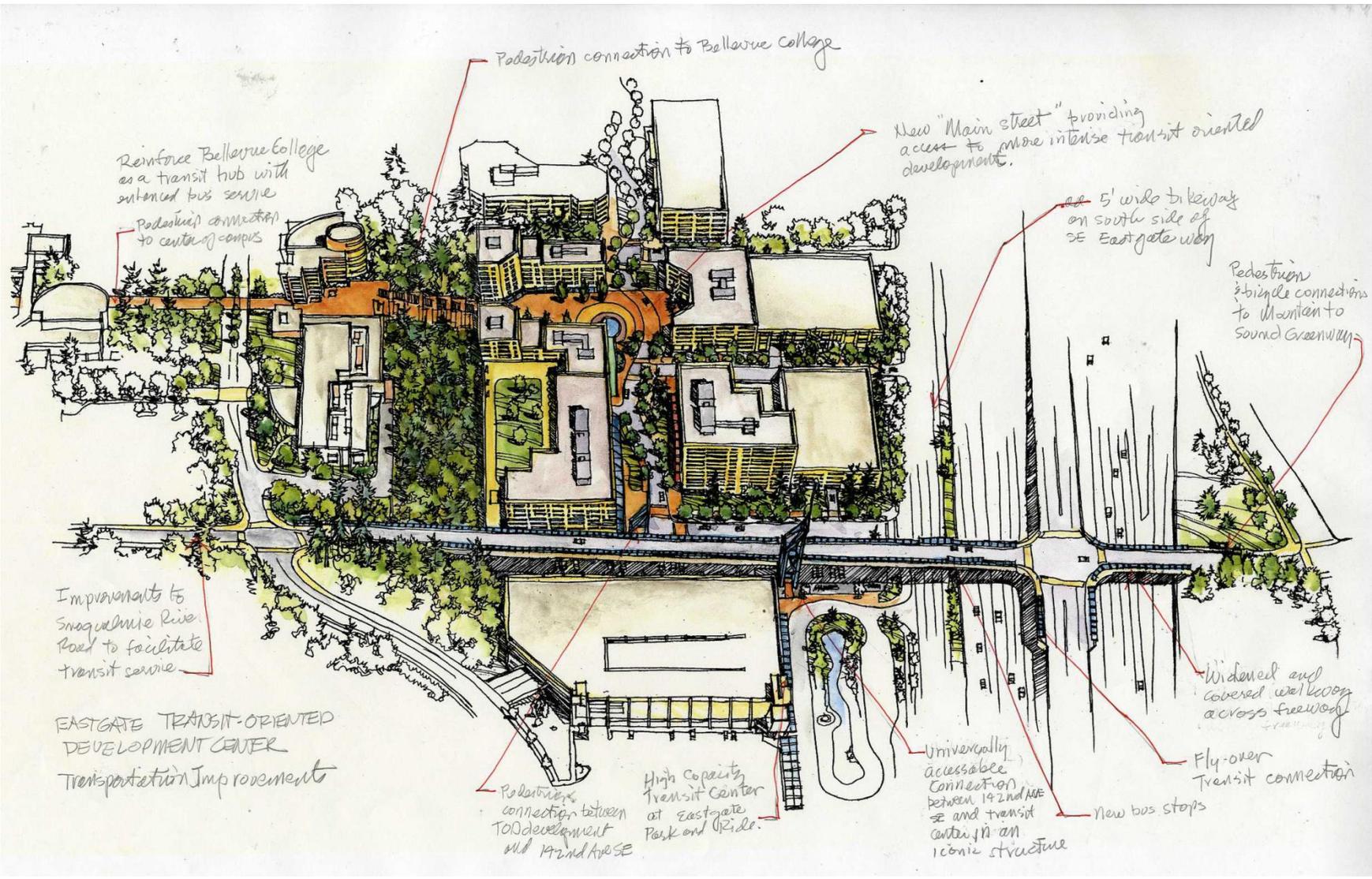


**Benefits:** Revised network requires an additional 4,800 hours and 5 buses; improvements realized at modest expense because reduced running times to/through BC save KC Transit apprx \$500K/annually.



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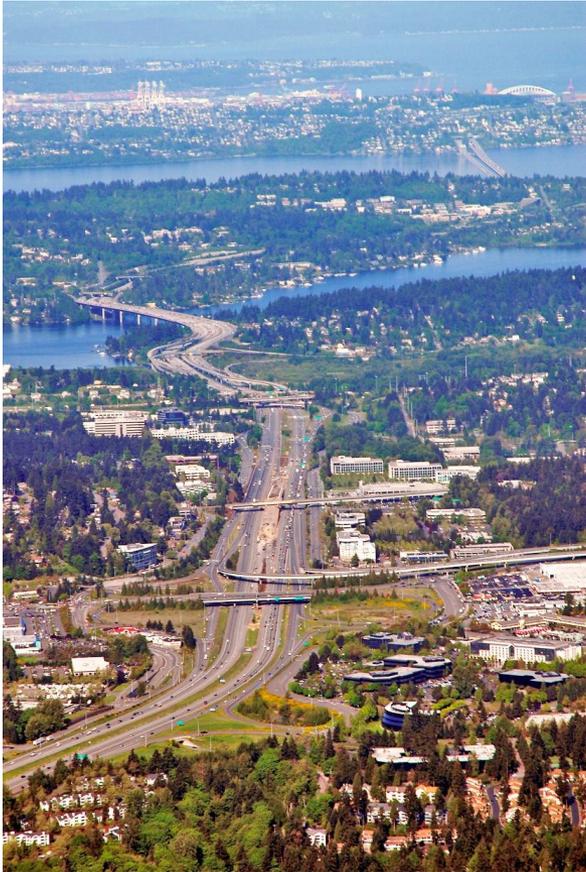
**Service Improvements**



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# TOD Vision



# ***Ped/Bike Improvements: Costs/Benefits***



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## G-1: Mountains to Sound Greenway Trail

Transportation Strategies Report: pages 35-38



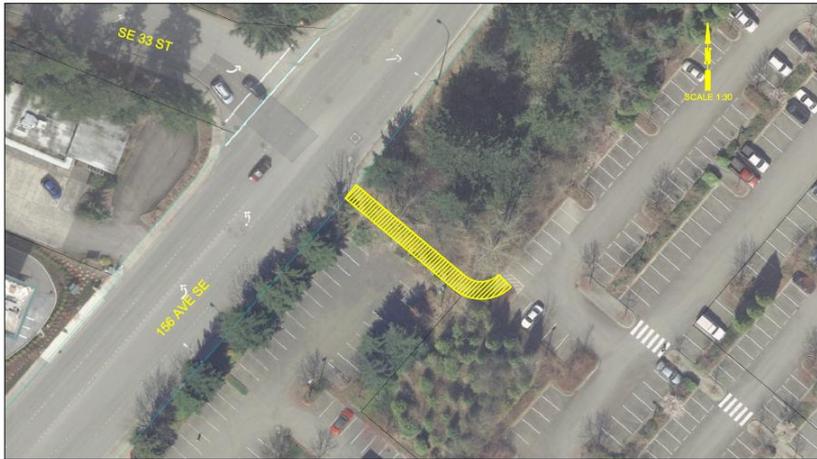
**Develop the Mountains to Sound Greenway Trail from the I-90 trail at Factoria Blvd and continue eastward to Lakemont Blvd. Ensure that SE 36th St receives "boulevard" treatments including street trees, median plantings, special lighting, crosswalks, seating, special signs, landscaping, and public art.**

*Plan Range: \$5M - \$9.9M (COB estimate, 2011)*

***Benefits: Eliminates the "Eastgate Gap" in the MTS trail, improves linkages between urban and natural systems, and enhances the visual coherence and attractiveness of the corridor.***

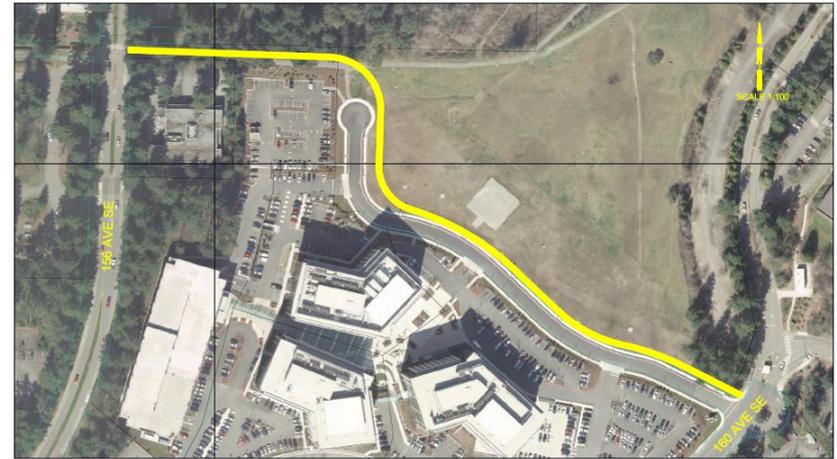
## P-2 & P-3: Ped-Bike Connectivity Improvements

Transportation Strategies Report: pages 39-40 and A58-A59



Improve east-west pedestrian and bicycle connectivity to retail services by creating a 6 to 10' wide trail connection that links SE 33<sup>rd</sup> Street to 156th Avenue SE

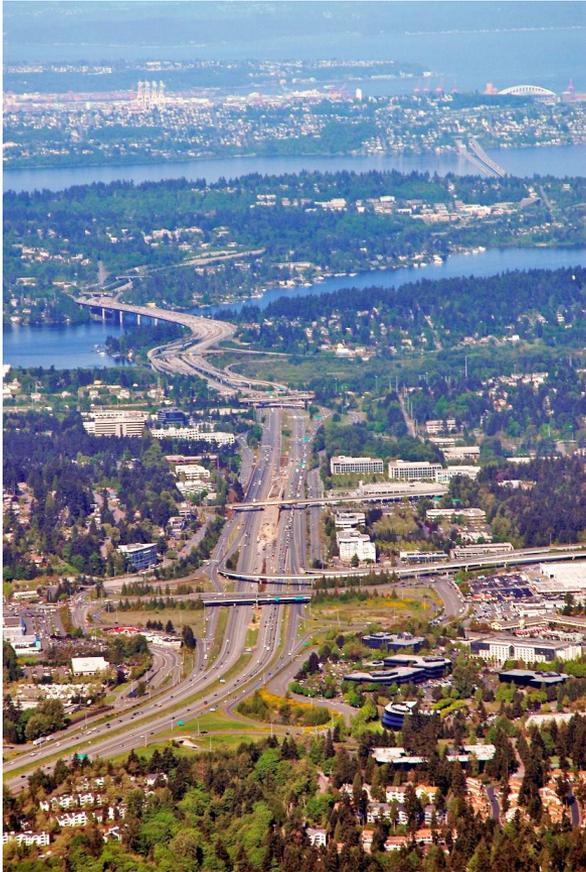
*Project P-2: \$90,000  
(COB estimate, 2011)*



Improve east-west pedestrian and bicycle connectivity by enhancing the gravel trail connection east of 156<sup>th</sup> Ave SE that connects to I-90 Office Park with an asphalt surface.

*Project P-3: \$415,000  
(COB estimate, 2011)*

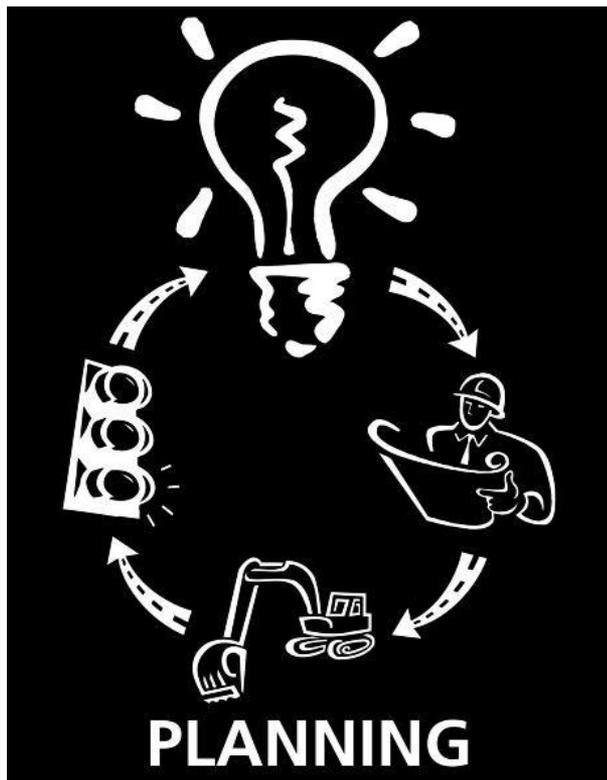
***Benefits: People in this large office area (Microsoft 2,000 employees; Boeing 2,758 employees; Verizon 1,146 employees; and, Department of Ecology 208 employees) would have an attractive alternative to Eastgate Way (which has no bicycle facilities and a poor pedestrian level of service).***



# *Implementation Considerations*



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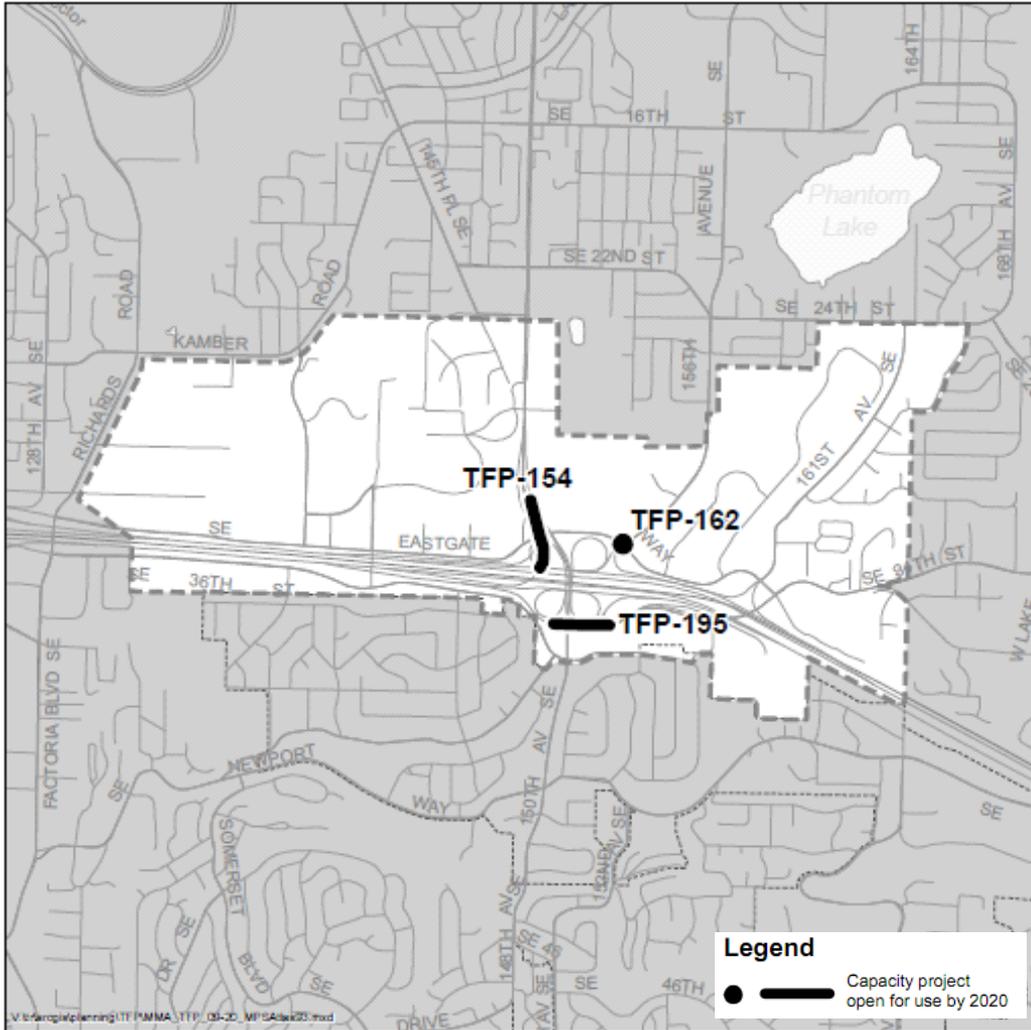
- **Planning Study Recommendations:**

Implementation will require additional evaluation to determine optimum design for specific locations.

- **Competing Priorities:** Implementation will require trade-off decisions with other transportation needs.

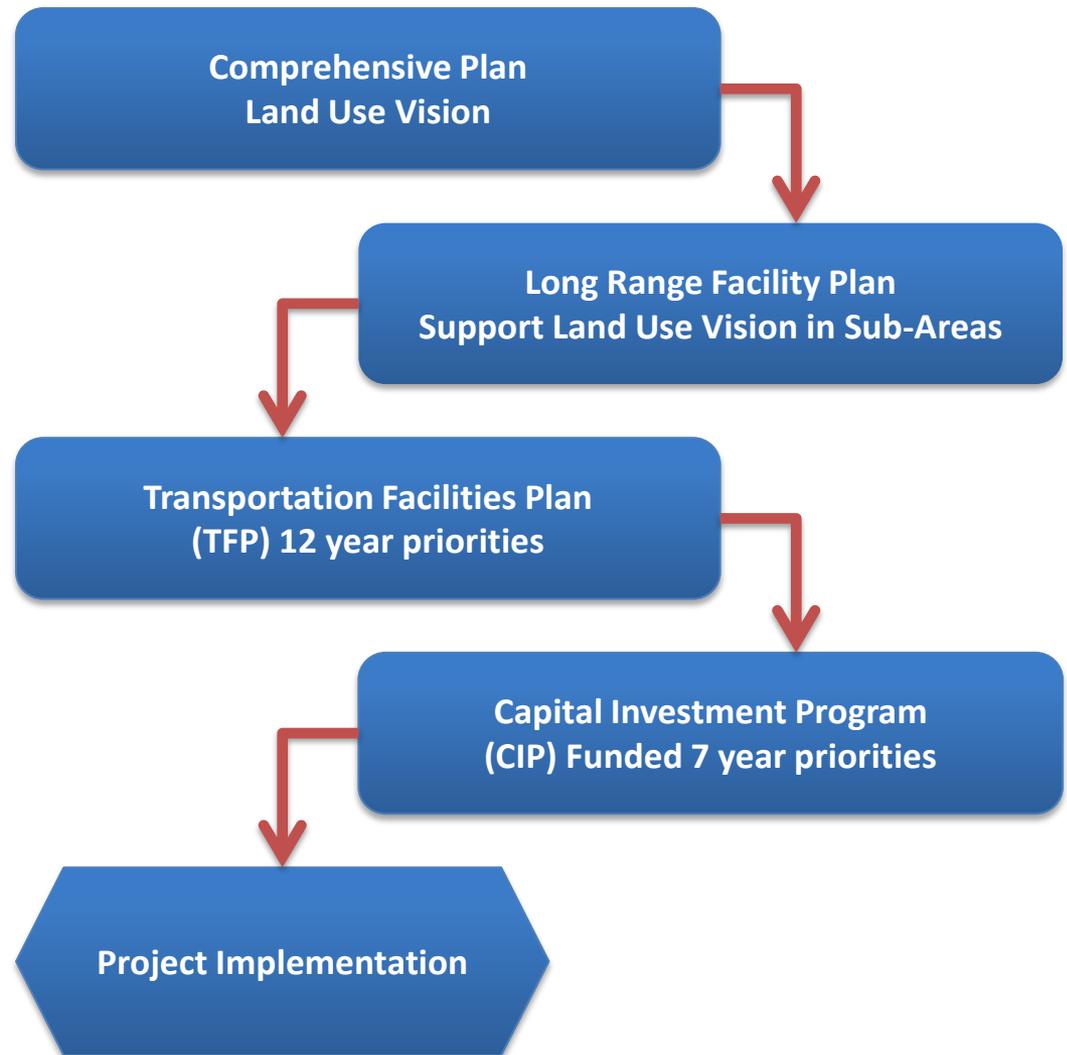
- **Financing Challenges:** Clear policy guidance is needed to focus limited funding and to determine where available dollars should be spent for the most compelling needs.



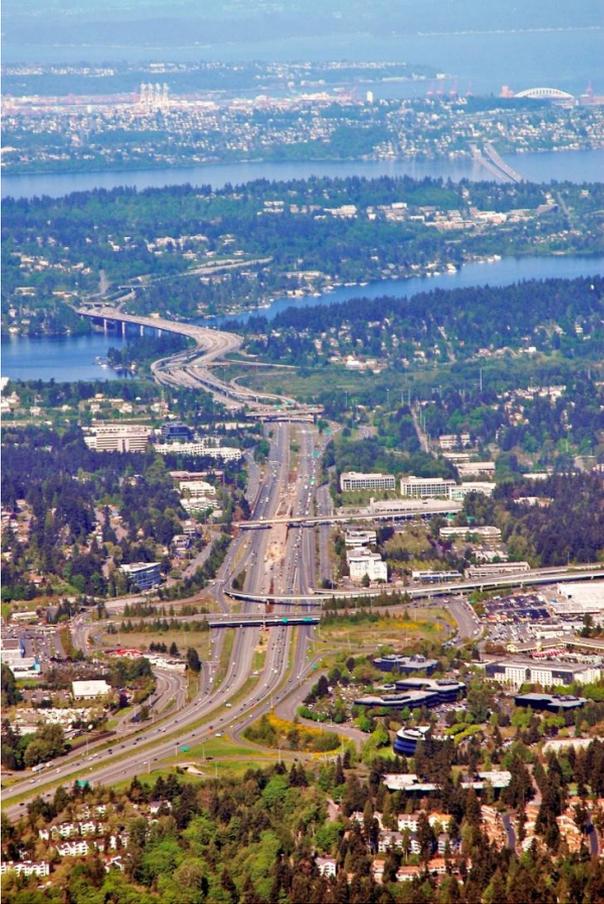


TFP#	Project Name, Location and Limits	Project Description
TFP-154	148th/150th Avenue SE/I-90 westbound on-ramp to I-90 westbound off-ramp	Widen by extending the third southbound lane on 148th Avenue SE from the on-ramp to westbound I-90 to south of Eastgate Way at the I-90 westbound off ramp.
TFP-162	156th Avenue SE at SE Eastgate Way (I-90 westbound off-ramp)	Widen the I-90 westbound off-ramp to provide two dedicated left turn lanes and a shared through/right lane with a channelized right turn.
TFP-195	150th Avenue SE/SE 37th Street/I-90 off-ramp widening	Widen I-90 off-ramp 300' west of 150th Avenue SE and add a through lane. Widen SE 37th Street approximately 500' to the east of 150th Avenue SE to allow for a bypass lane on the right side of the street.

- **Comprehensive Plan** outlines the City's long-term (over 20 years) land use vision.
- **Long range facility plans** include a wide range of improvement projects designed to meet the mobility goals of the subarea.
- **Transportation Facilities Plan (TFP)** City's transportation implementation plan, constrained by identified City and other revenues that are projected for the next 12 years.
- **Capital Investment Program (CIP)** provides a minimum six-year period (the City adopts a seven-year CIP every two years) for implementation of TFP projects that are likely to be needed in the short term.



[www.bellevuewa.gov/eastgate-corridor.htm](http://www.bellevuewa.gov/eastgate-corridor.htm)



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**Additional Information**